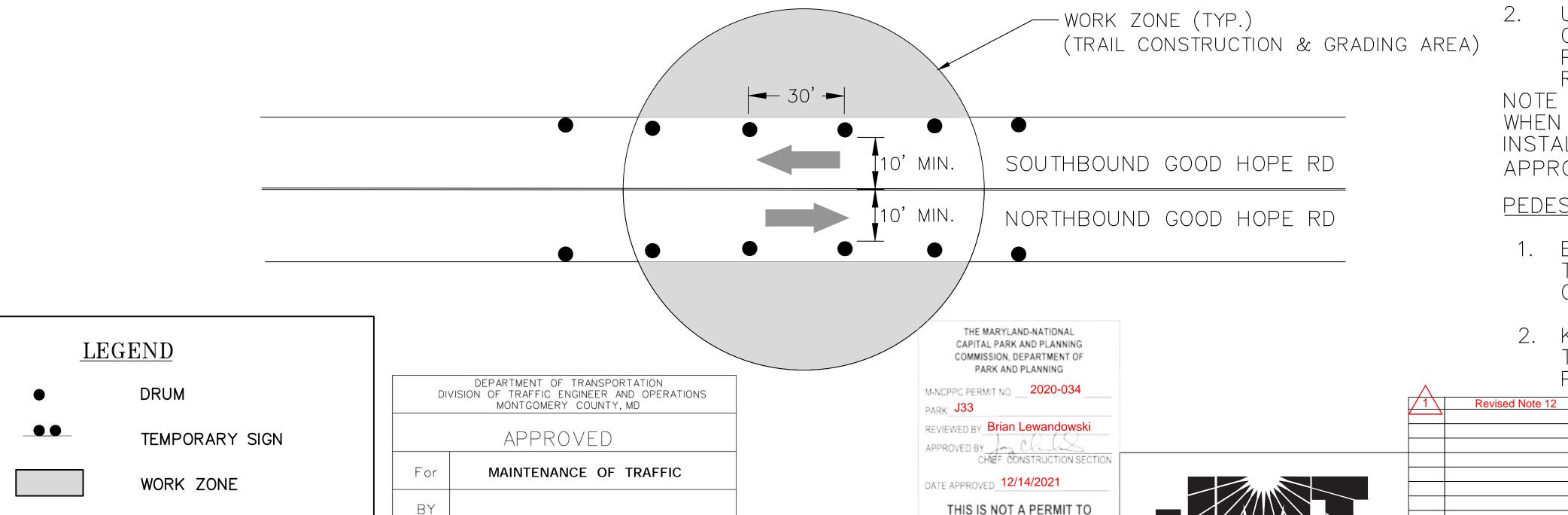
MAINTENANCE OF TRAFFIC NOTES:

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MARYLAND STATE HIGHWAY WORK ZONE TRAFFIC CONTROL TYPICALS IN CATEGORY 1 OF THE BOOK OF STANDARDS. THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS ADOPTED BY THE STATE OF MARYLAND, THESE PLANS, AND OTHER CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION IN ACCORDANCE WITH THE METHOD OF TRAFFIC CONTROL SHOWN ON THESE DRAWINGS, OTHER CONTRACT DOCUMENTS, AND THE 2011 MD MUTCD AND SUBSEQUENT REVISIONS.
- 3. ALL TEMPORARY SIGNS FOR MAINTENANCE OF TRAFFIC SHALL BE PER MONTGOMERY COUNTY STANDARD TCP-100.01 AND SECTION 4.0 SIGNS OF THE MDSHA GENERAL NOTES FOR TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS (TTCTA) AS SHOWN ON ON MDSHA STD DETAIL 104.00—06 TO MDSHA STD 104.00—08. SIGNS SHALL BE MOUNTED PER SÈCTION (4.0 OF THE TTCTA AND AS SHOWN ON MDSHA STD 104.01-17A TO MDSHA STD 104.01-17D OR AS OTHERWISE SHOWN ON THESE PLANS OR AS DIRECTION BY THE ENGINEER.
- 4. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, DRUMS, BARRIER, AND PAVEMENT MARKINGS ARE IN PLACE AND OPERATIONAL, AS APPROVED BY THE ENGINEER.
- 5. CONSTRUCTION WARNING SIGNS ABOUT SPECIFIC AREAS AND TYPE OF CONSTRUCTION WILL BE PLACED AS DIRECTED BY THE ENGINEER.
- 6. ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION UNLESS A CHANGE IS SHOWN ON THE PLAN AND/OR AS DIRECTED BY THE ENGINEER.
- 7. UNLESS OTHERWISE SHOWN ON THE PLANS, ACCESS SHALL BE PROVIDED TO ALL DRIVEWAYS AND CROSS STREETS AT ALL TIMES.
- 8. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR AATSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE MONTGOMERY COUNTY INSPECTOR.
- 9. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE MONTGOMERY COUNTY INSPECTOR OR IF THE FLAGGERS CANNOT SEE EACH OTHER AND/OR THE LANE CLOSURE EXCEEDS 200 FEET.
- 10. THE CONTRACTOR SHALL CONTACT MONTGOMERY COUNTY TMC AT 240-777-2100, 72 HOURS PRIOR TO STARTING ALL WORK.
- 11. DRUMS SHALL PROTECT THE WORK ZONE DURING NON-WORK HOURS AND SHALL BE RESET ACCORDING TO THE STANDARDS LISTED IN THE SEQUENCE OF CONSTRUCTION NOTED ON THIS PLAN DURING WORK HOURS.
- FLAGGING OPERATIONS 12. TEMPORARY MOT SIGNAGE / ADVANCE WARNING SIGNS SHALL BE INCLUDED IN LUMP SUM COST FOR MAINTENANCE OF



BEGIN CONSTRUCTION

This approval is for technical review only.

For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574 SEQUENCE OF CONSTRUCTION:

PHASE ONE - STAGE ONE:

- 1. ESTABLISH APPLICABLE SEDIMENT AND EROSION CONTROL MEASURES.
- 2. PLACE MAINTENANCE OF TRAFFIC ITEMS AS INDICATED ON THE PLANS.
- 3. UTILIZE FLAGGING OPERATION PER COUNTY STANDARDS TCP 102.02 AND 109.01 AS SHOWN ON PHASE ONE STAGE ONE MOT DRAWINGS TO INSTALL STORMWATER SYSTEM ALONG NORTHBOUND SHOULDER NORTH OF WINDMILL LANE AND PERFORM OPEN CUT AND TRENCHING OF CULVERT IN NORTHBOUND TRAVEL LANE AND SHOULDER AT STATION 4+50.

PHASE ONE - STAGE TWO:

- 1. REVERSE FLAGGING OPERATION AS SHOWN ON PHASE ONE STAGE TWO MOT DRAWINGS TO COMPLETE OPEN CUT AND TRENCHING OF CULVERT AT STATION 4+50 IN SOUTHBOUND TRAVEL LANE.
- 2. REMOVE TEMPORARY CONCRETE BARRIER AND CRASH CUSHIONS.

PHASE TWO — STAGE ONE:

- ESTABLISH SEDIMENT AND EROSION CONTROL MEASURES.
- 2. PLACE MAINTENANCE OF TRAFFIC ITEMS AS INDICATED ON THE PLANS.
- 3. UTILIZE 48 HOUR MAXIMUM WEEKEND CLOSURES OF SIDEWALK TO RECONSTRUCT PEDESTRIAN RAMPS AT THE SOUTHEAST CORNER OF GOOD HOPE ROAD AND WINDMILL LANE AND SOUTHWEST CORNER OF GOOD HOPE ROAD AT RAINBOW DRIVE.
- CONSTRUCT ASPHALT TRAIL, DRIVEWAY MODIFICATIONS, PEDESTRIAN LIGHTING, PEDESTRIAN SIGNALS AT BRIGGS CHANEY ROAD, REMAINING DRAINAGE IMPROVEMENTS NOT INCLUDED IN PHASE ONE, AND OTHER WORK AS SHOWN IN THE PLANS ALONG GOOD HOPE ROAD.
- STABILIZE AND CLEAN ALL CONSTRUCTION AREAS.
- REMOVE MAINTENANCE OF TRAFFIC ITEMS.

PHASE TWO - STAGE TWO:

REVISION

- PLACE MAINTENANCE OF TRAFFIC ITEMS AS INDICATED ON THE PLANS.
- UTILIZE FLAGGING OPERATION PER COUNTY STANDARD TCP 102.02 TO CLOSE SOUTHBOUND LANE TO ACCOMODATE INSTALLATION OF PRE-FABRICATED PEDESTRIAN BRIDGE ON WEST SIDE OF GOOD HOPE ROAD SOUTH OF HOPEFIELD ROAD.

NOTE - PHASE TWO STAGE TWO MAY OCCUR WITHIN PHASE 2 STAGE ONE WHEN GRADING AND STREAM WORK HAS PROGRESSED SUCH THAT INSTALLATION OF THE PREFABRICATED BRIDGE IS FEASIBLE. REFER TO APPROVED ERECTION PLAN / SHOP DRAWINGS FOR PREFABRICATED BRIDGE.

PEDESTRIAN MAINTENANCE OF TRAFFIC NOTES:

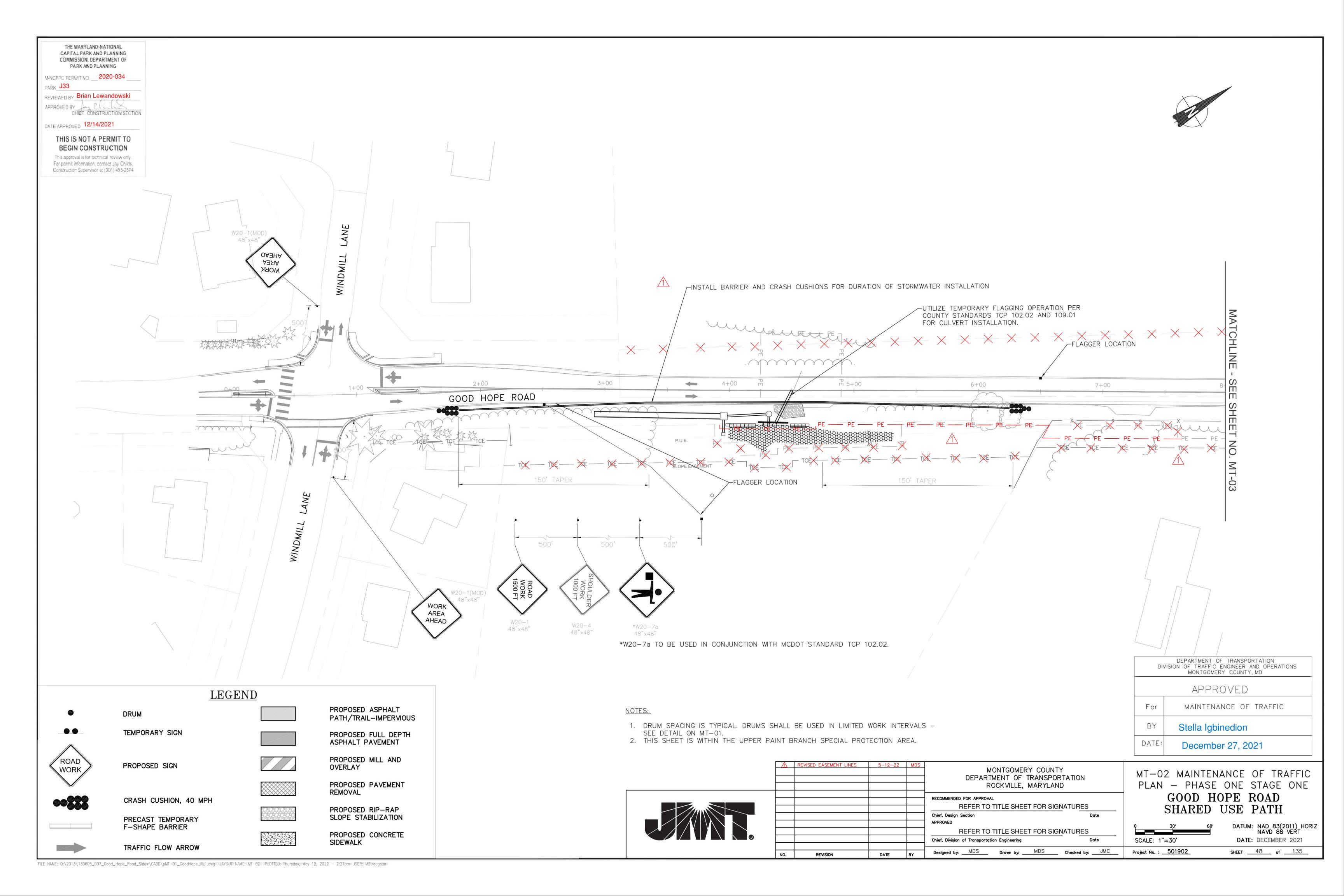
- 1. ENSURE THAT A SAFE ROUTE FOR PEDESTRIANS IS AVAILABLE AT ALL TIMES DURING CONSTRUCTION WITH THE EXCEPTION OF 48 HOUR WEEKEND CLOSURE AT WINDMILL LANE FOR RAMP RECONSTRUCTION.
- 2. KEEP ANY EXISTING PEDESTRIAN FACILITIES CLEAN AND ACCESSIBLE THROUGHOUT CONSTRUCTION WITH THE EXCEPTION OF WHEN THE PARTICULAR AREA IS BEING ALTERED AS SHOWN ON THE PLANS.

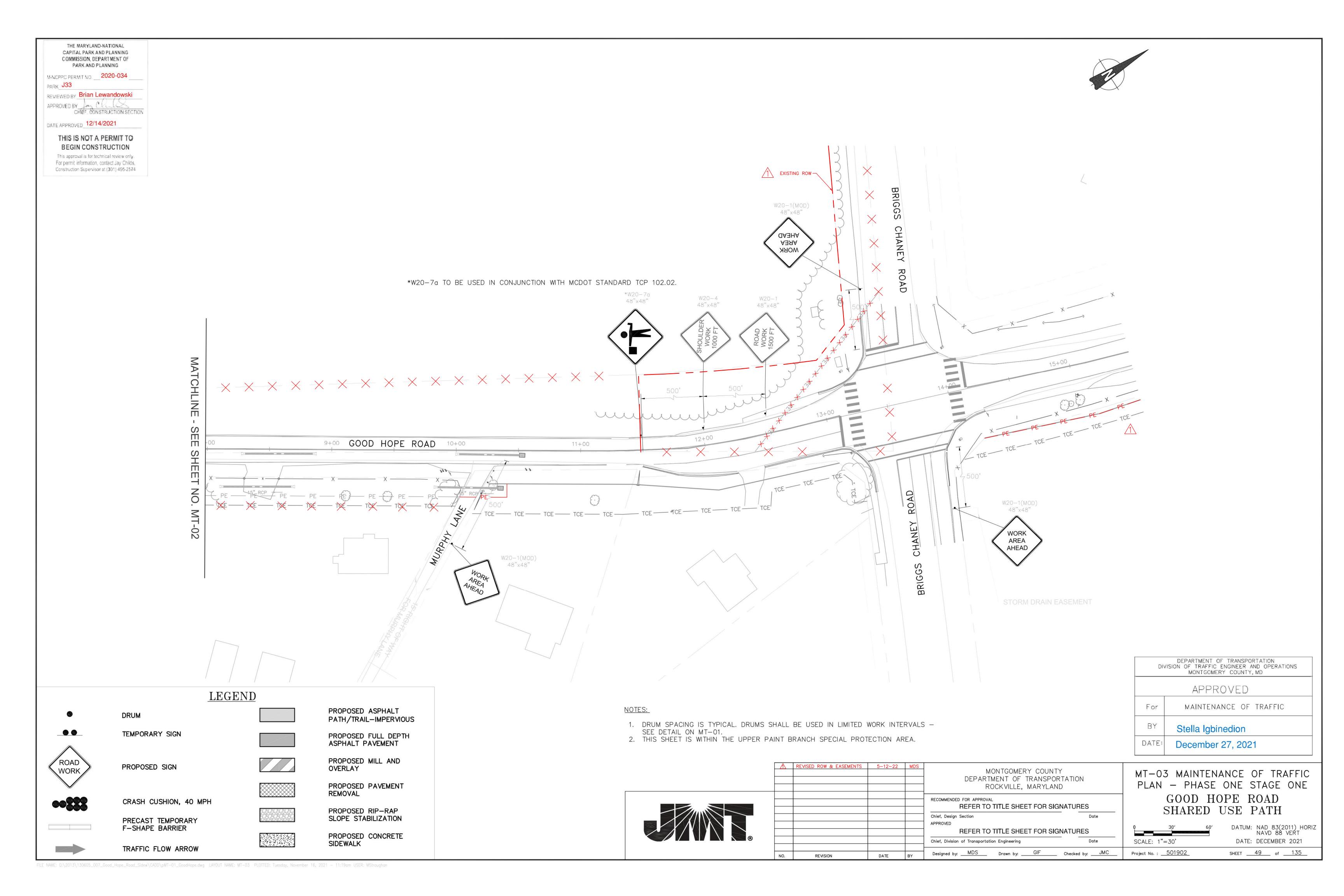
MONTGOMERY COUNTY

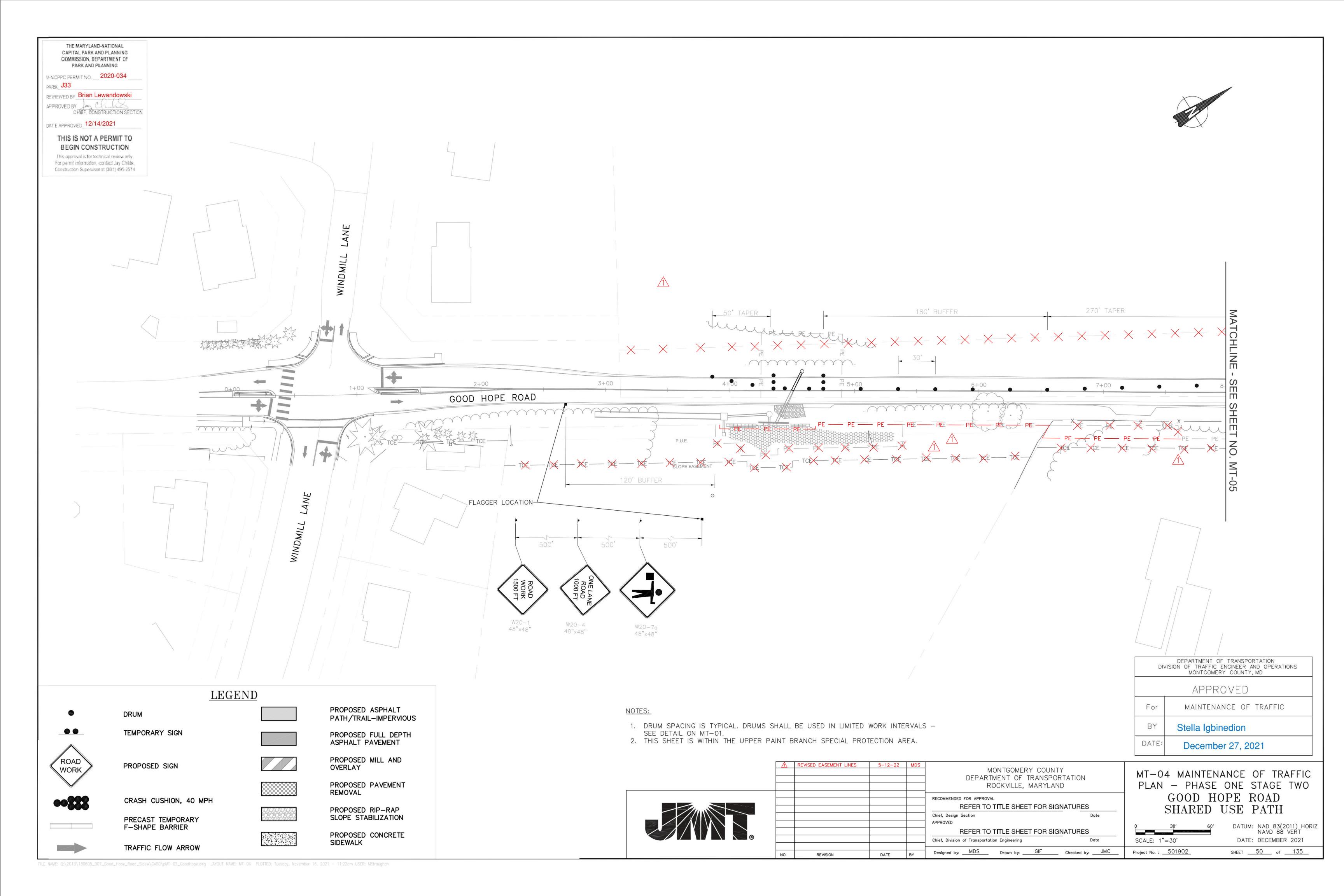
MT-01 MOT NOTES & DETAILS DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND GOOD HOPE ROAD REFER TO TITLE SHEET FOR SIGNATURES SHARED USE PATH Chief, Design Section APPROVED DATUM: NAD 83(2011) HORIZ NAVD 88 VERT REFER TO TITLE SHEET FOR SIGNATURES Chief, Division of Transportation Engineering SCALE: 1"=30' DATE: DECEMBER 2021 Designed by: MDS Drawn by: MDS Checked by: JMC SHEET 47 of 135 Project No. : <u>501902</u>

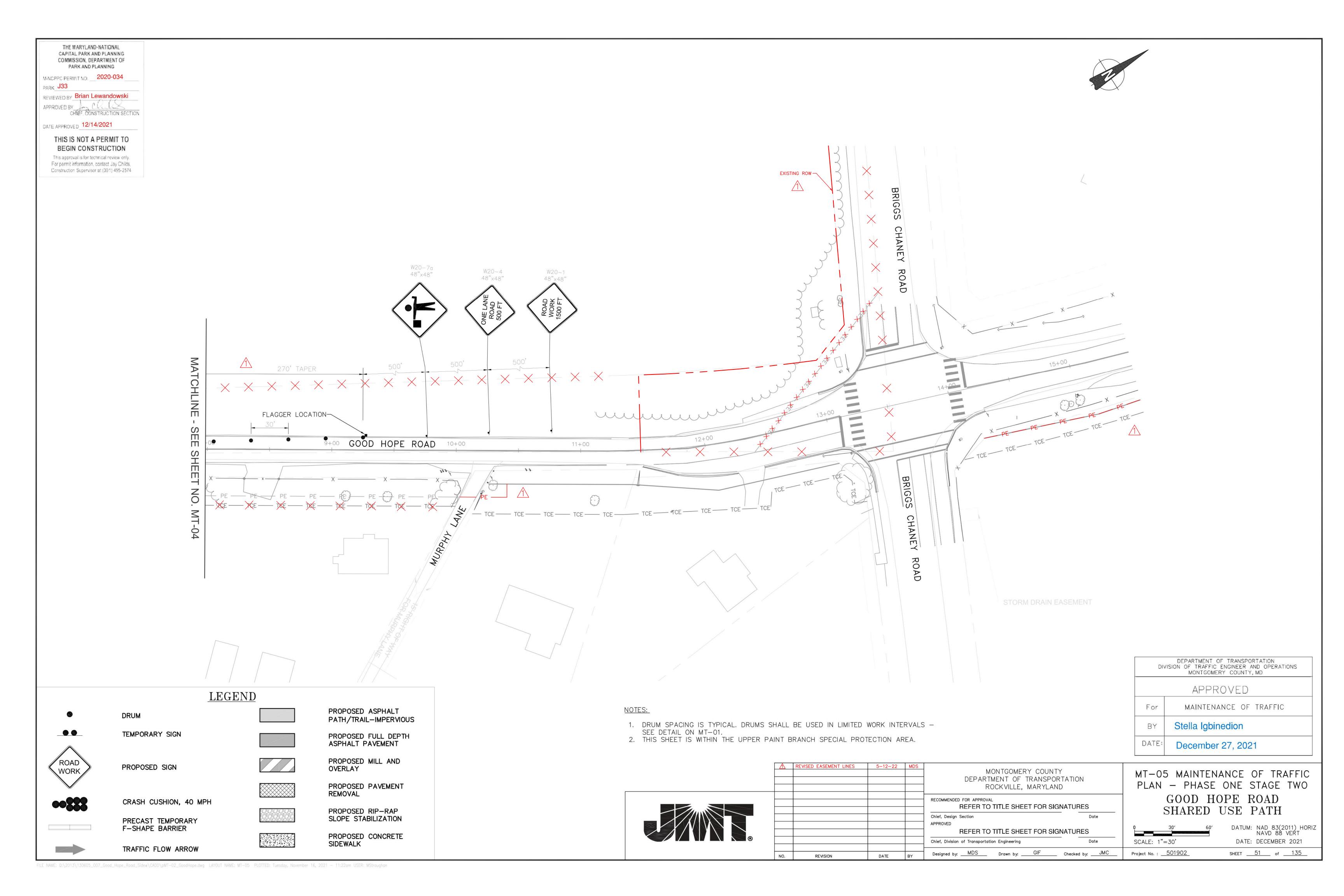
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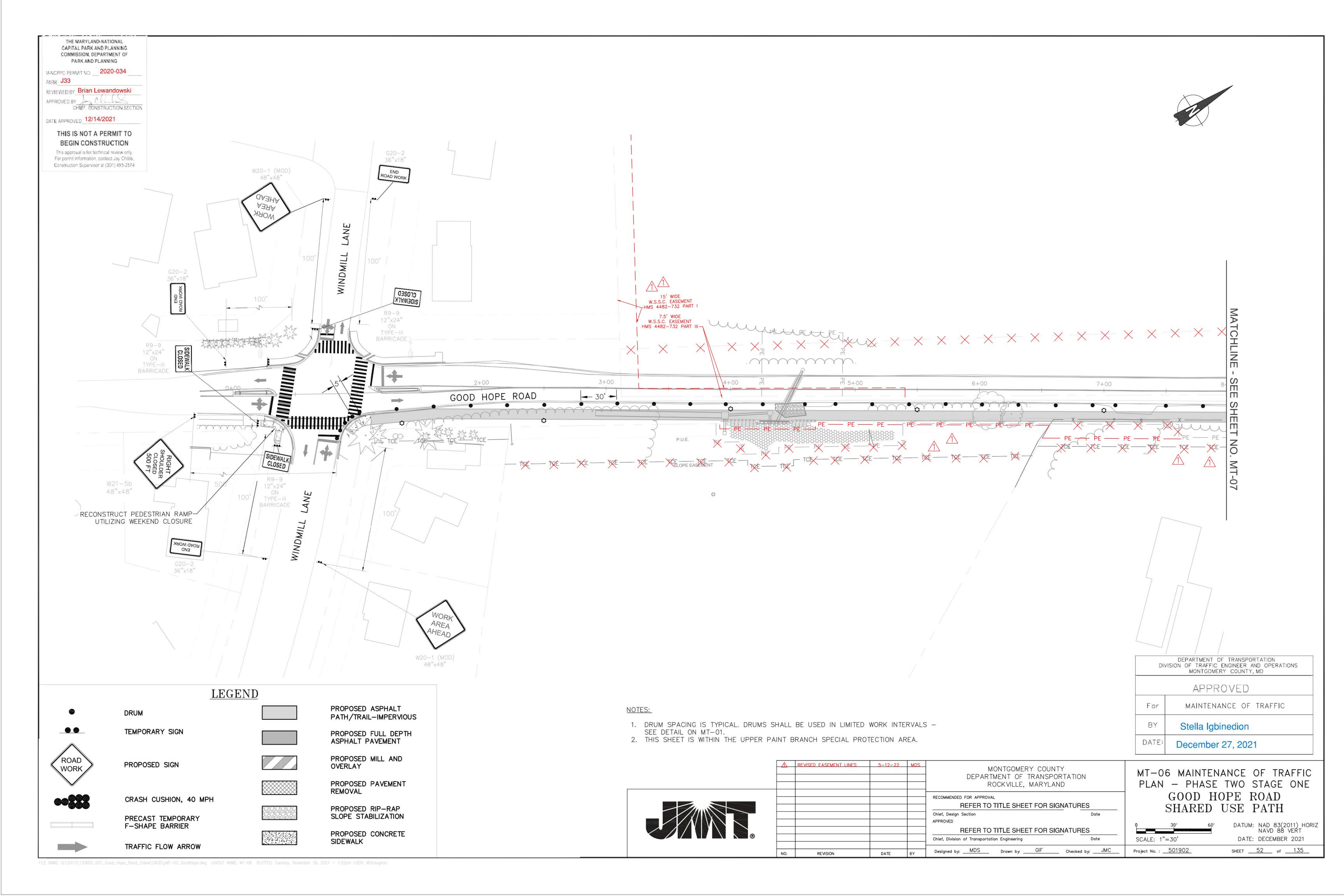
TRAFFIC FLOW ARROW

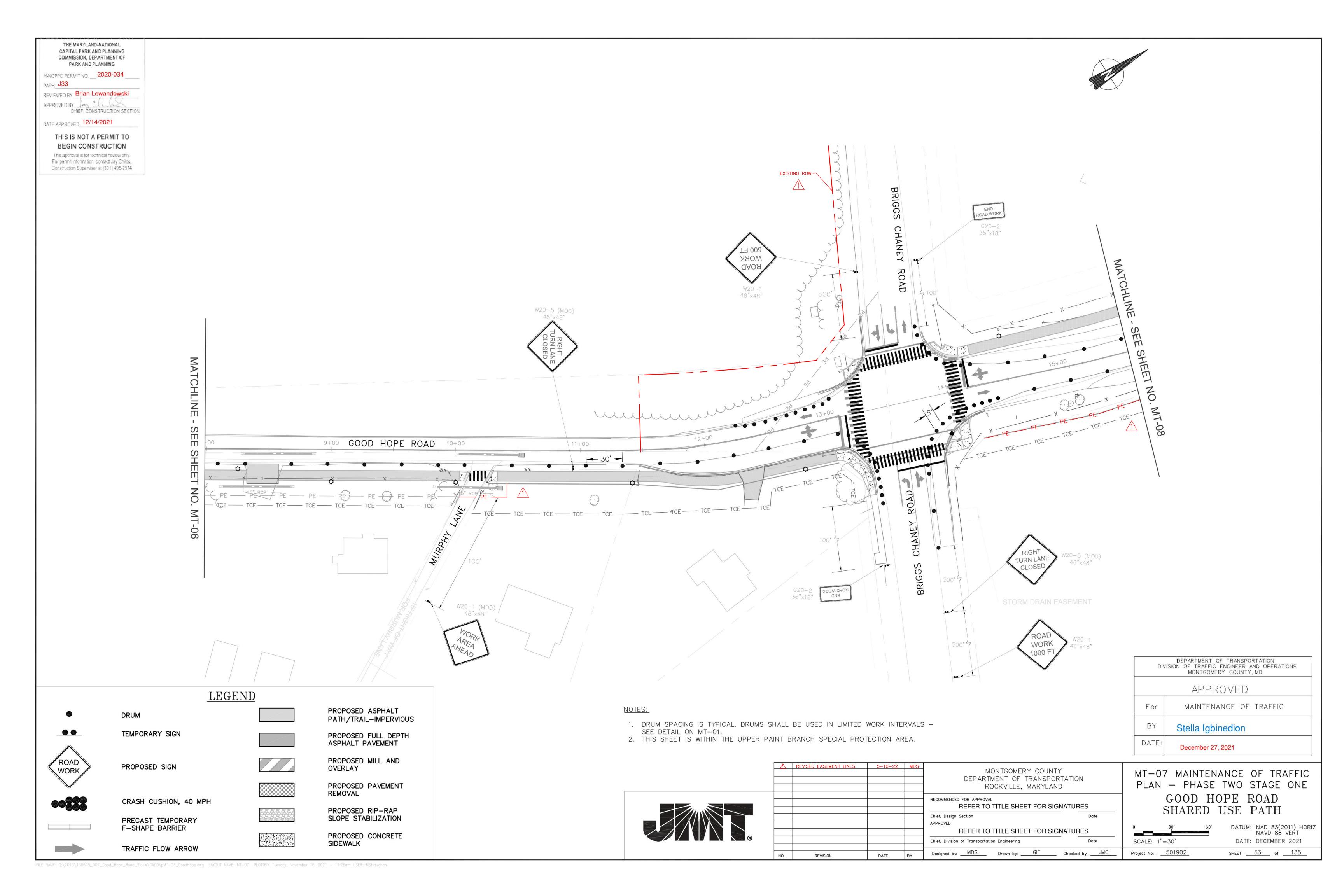


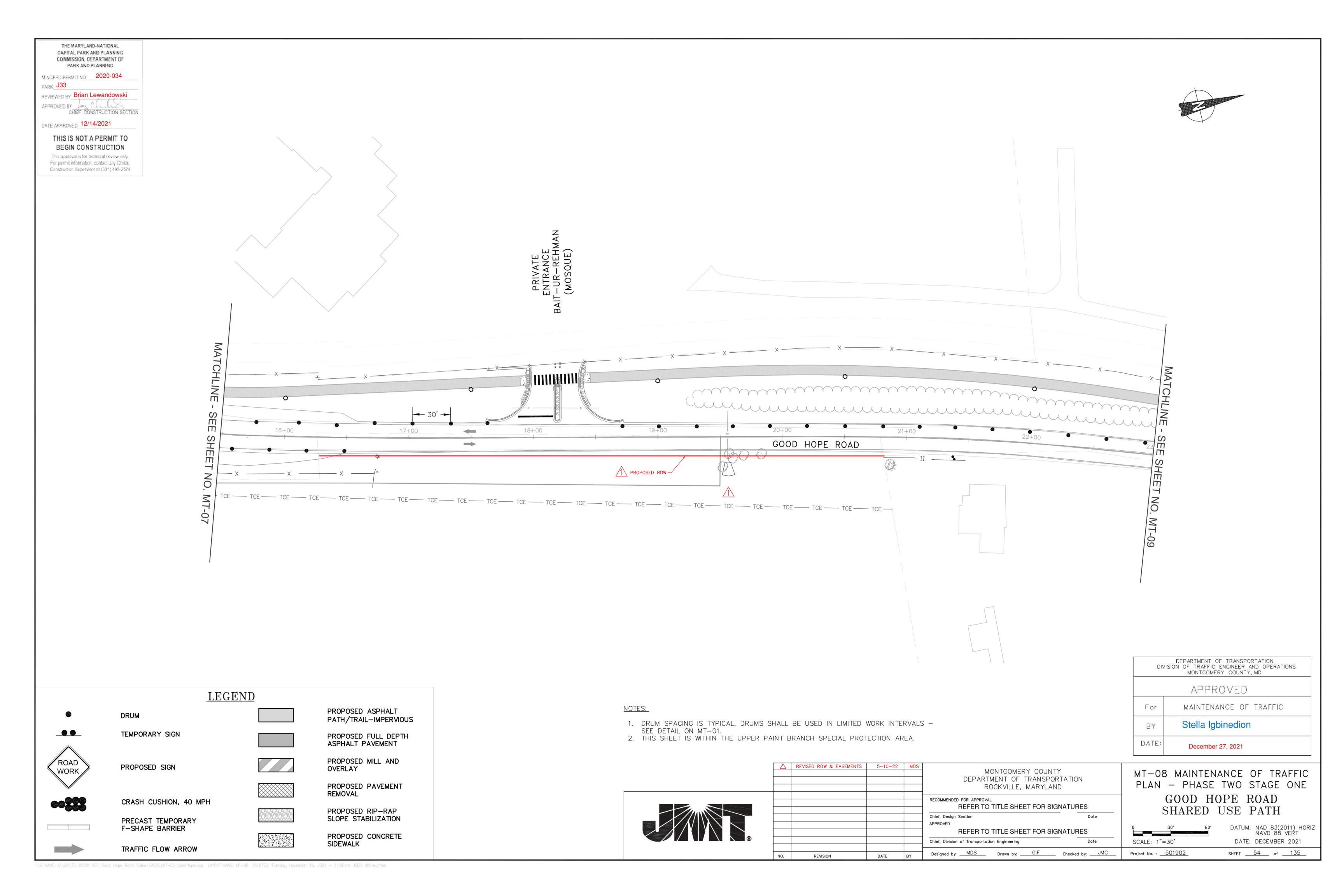


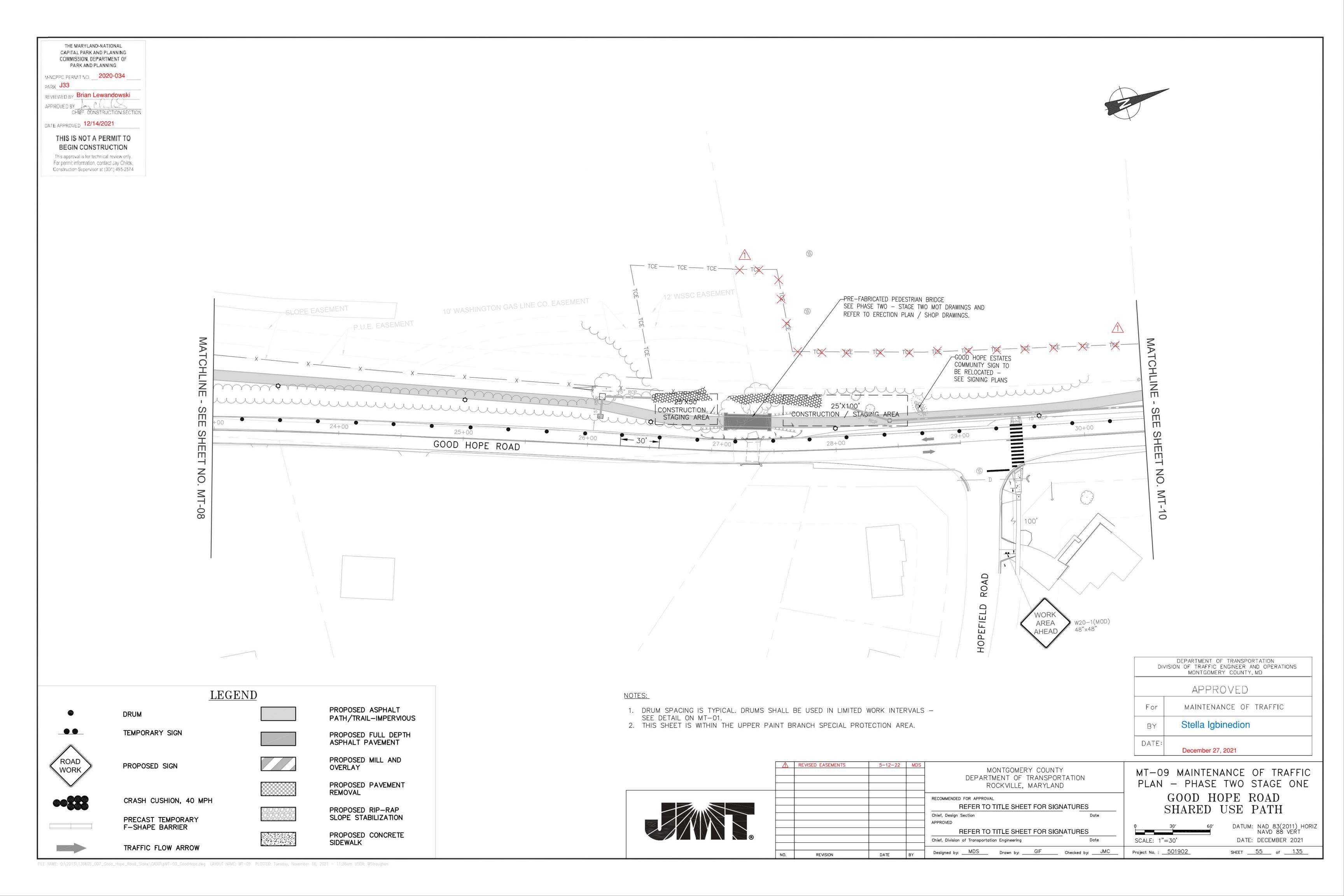


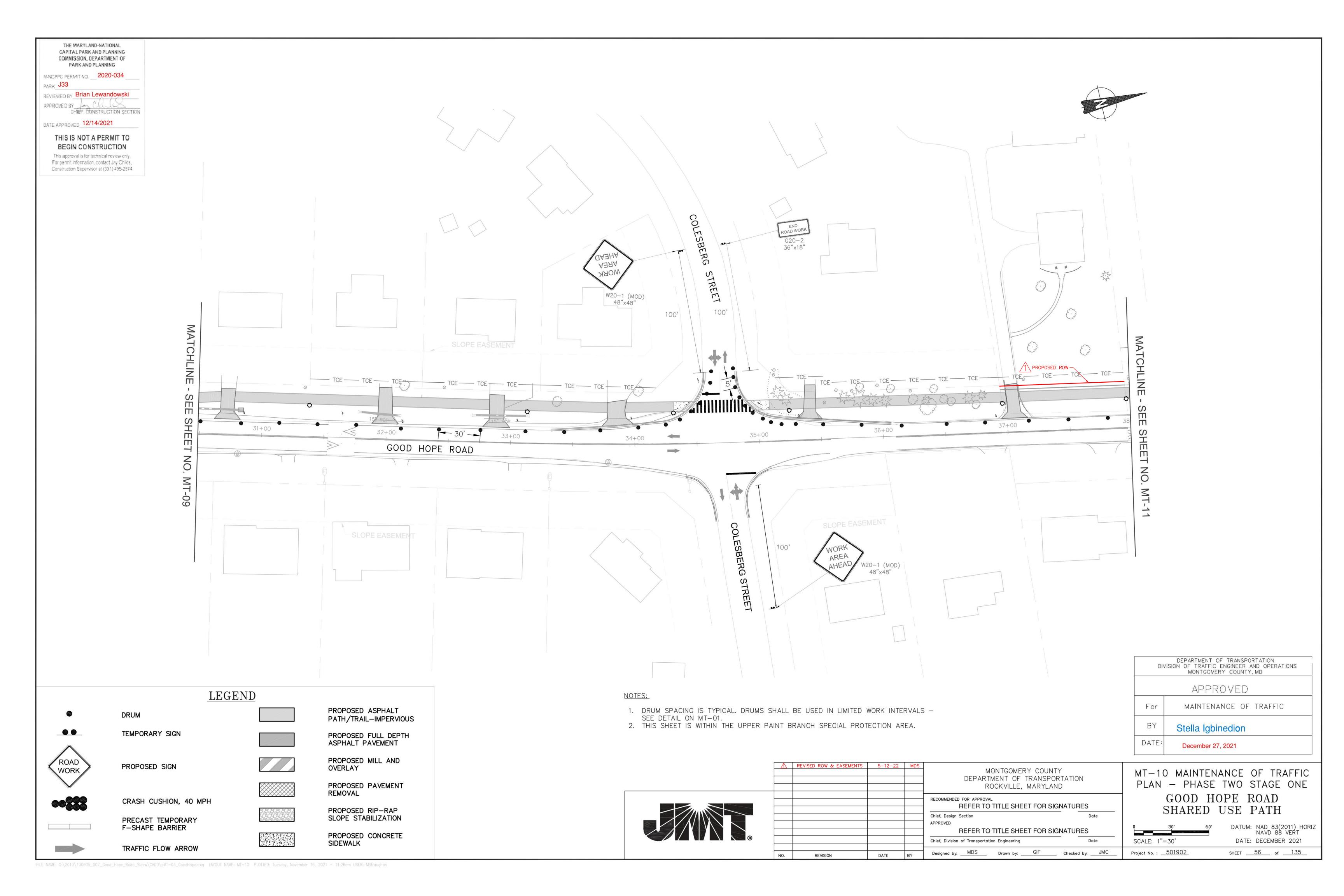


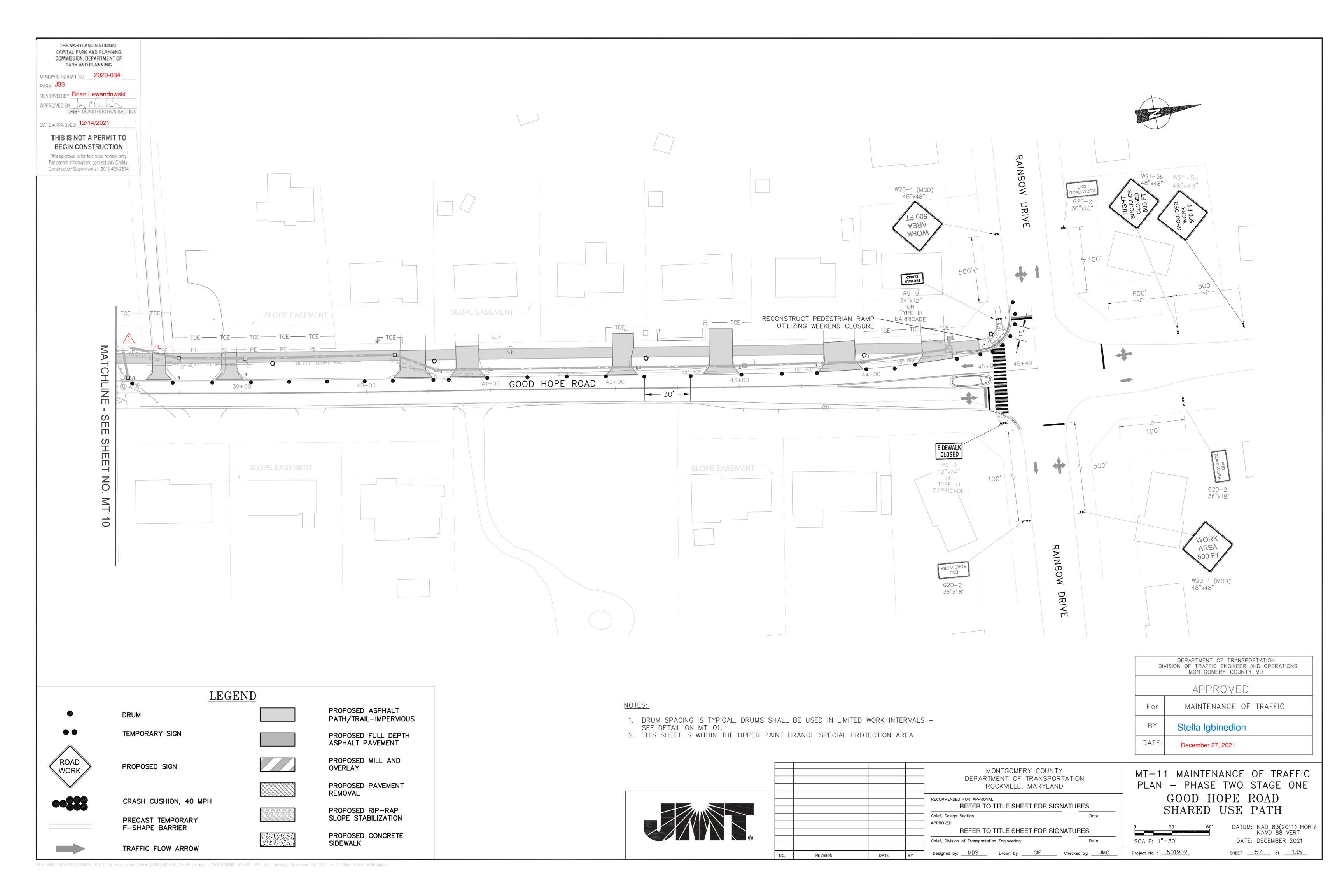


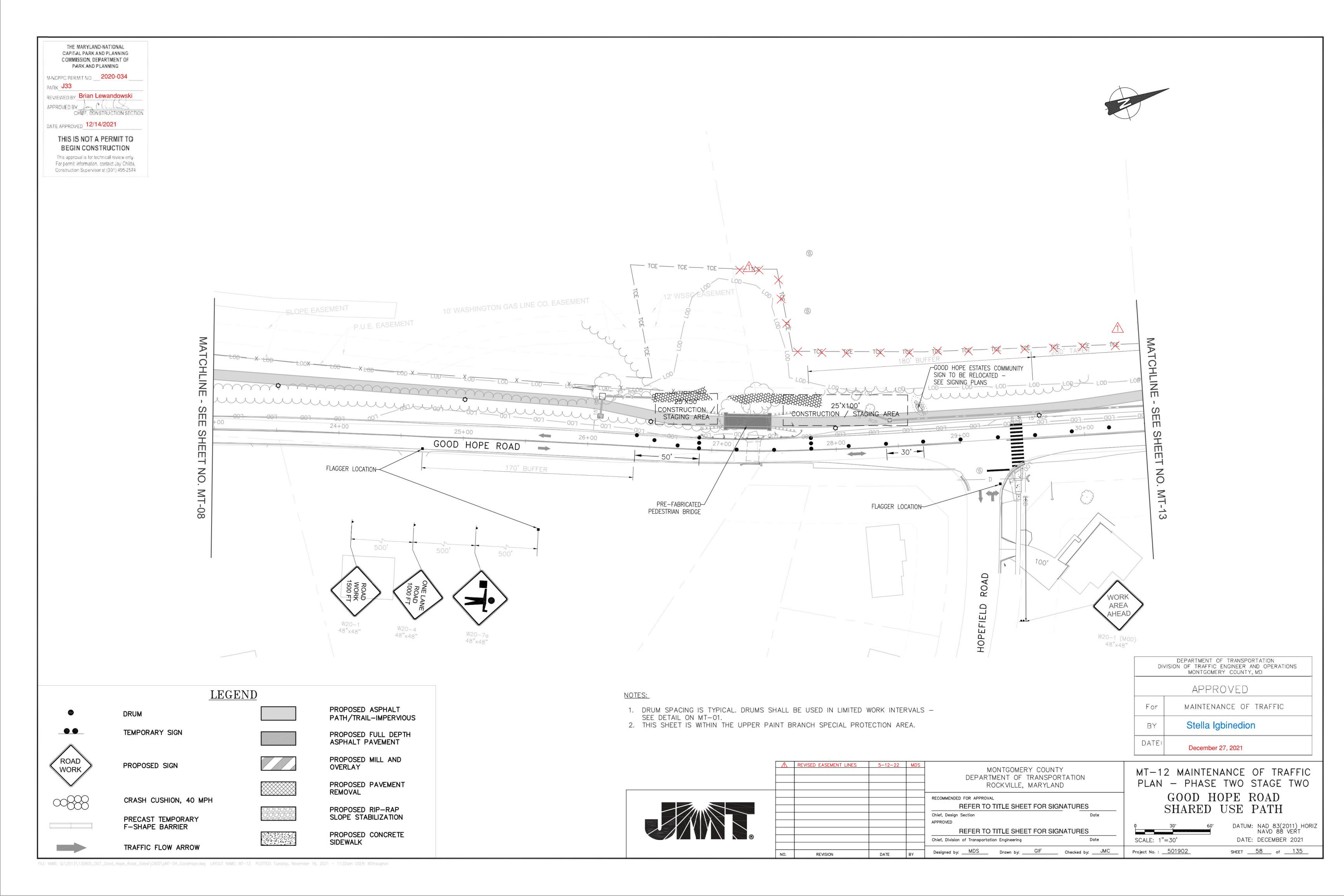


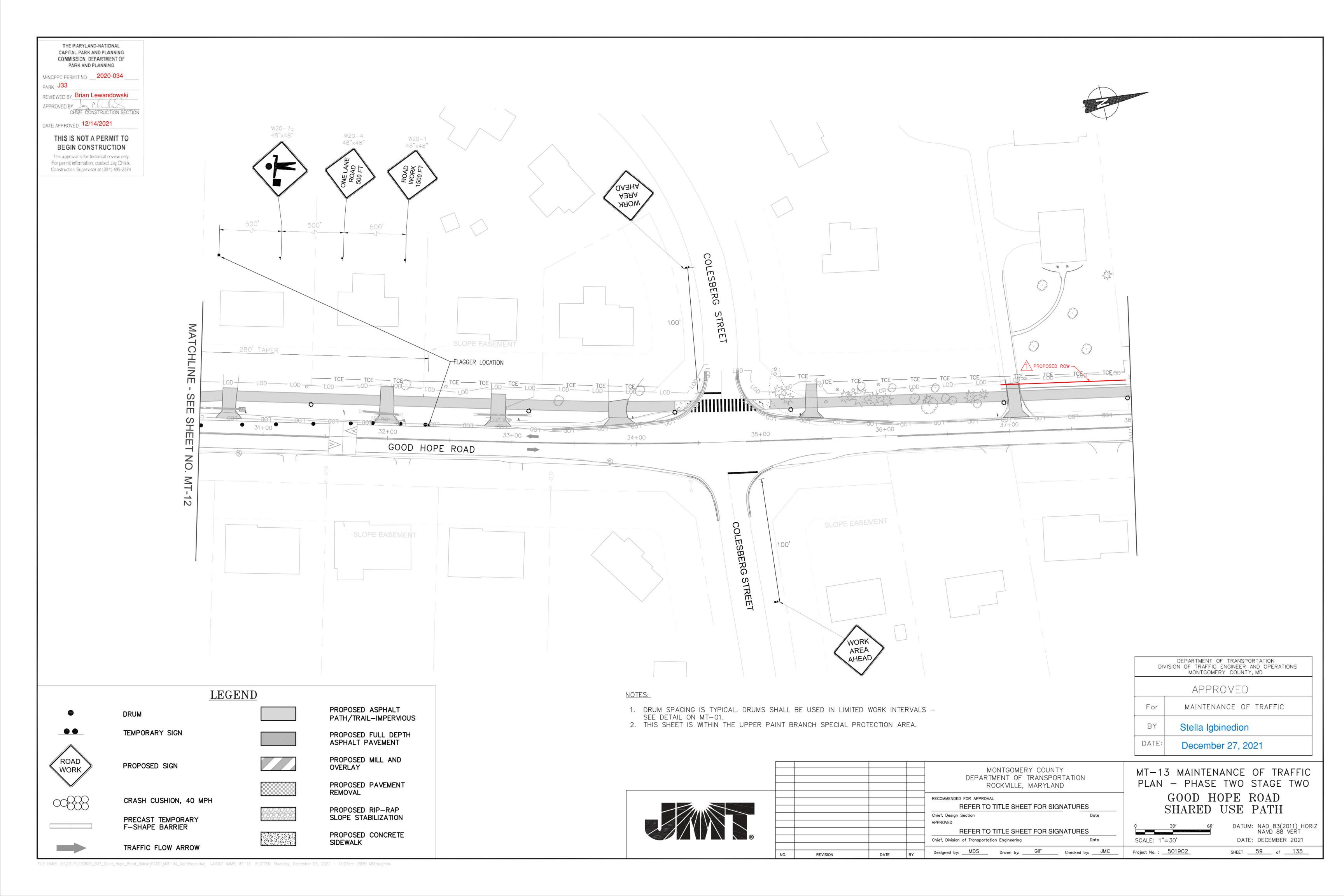












CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:

> MDOT SHA - "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2011 EDITION AND SUBSEQUENT REVISIONS. (MdMUTCD)

A A S H T O - "HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE" -1997

A A S H T O - "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS". 2001 EDITION (CATEGORY II FOR ALL OVERHEAD AND CANTILEVER SIGN STRUCTURES).

MATERIALS AND CONSTRUCTION

MDOT SHA - "STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS", 2021 EDITION AND SUBSEQUENT SUPPLEMENTS.

DESIGN WIND

100 MPH - WOOD SUPPORTS 10 YEAR RECURRENCE INTERVAL 100 MPH - GROUND MOUNT SIGN STEEL SUPPORTS ALL DISTRICTS 10 YEAR RECURRENCE INTERVAL 100 MPH - OVERHEAD AND CANTILEVER STRUCTURES 50 YEAR RECURRENCE INTERVAL

DESIGN STRESS

SOIL BEARING PRESSURE -S = 3,000 P.S.f. (ASSUMED) SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

1. GUIDE SIGNS

SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.

B) PANELS A) STRUCTURAL TYPES OH — OVERHEAD MATERIAL — EXTRUDED ALUMINUM C - CANTILEVER GM - GROUND MOUNT, BREAKAWAY OR NON-BREAKWAY BM - BRIDGE MOUNTED

COPY - DIRECT APPLIED 1) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS) 2. STANDARD SIGNS (REGULATORY, WARNING, ETC.)

MATERIAL - SHEET ALUMINUM

COPY - DIRECT APPLIED

WOOD SUPPORTS SQUARE TUBE

IDENTIFICATION OF SIGNS AND PANELS

A) STRUCTURAL TYPES

GUIDE SIGNS

EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS. (GM-1, GM-2, GM-3, etc)

SIGNS ON STRUCTURES ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR, A LOWER CASE LETTER. (OH-1a, OH-1b, OH-1c)

STANDARD SIGNS

STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS

R - REGULATORY W - WARNING

M - ROUTE MARKERS AND ACCESSORIES

D - DESTINATION AND MILEAGE PANELS

S - SCHOOL

PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK. EACH STANDARD SIGN IS IDENTIFIED FIRST BY THE SHEET NUMBER, THEN BY THE NUMERICAL ORDER OF THE SIGN AS IT APPEARS ON THE PLAN. FOR EXAMPLE SHEET SN 2.1-101,102,103, ETC. SHEET SN 2.2-201,202,203,ETC.

PANEL LAYOUT AND ALPHABETS

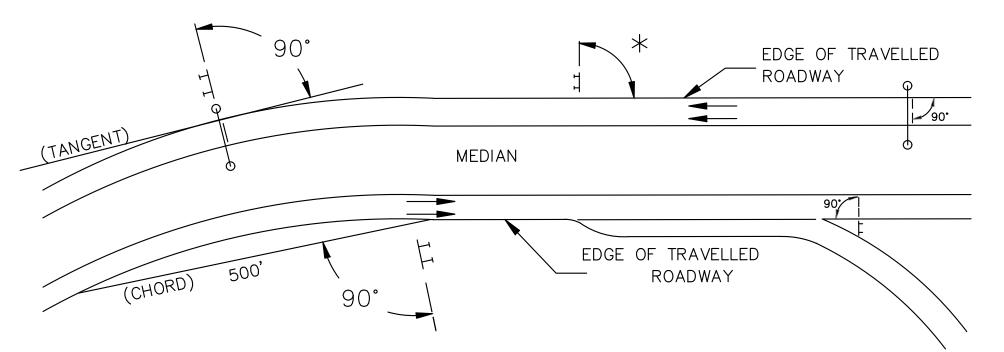
1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE. 2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE MdMUTCD WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, "STANDARD SIGN BOOK", AVAILABLE ONLINE @ https:/www.marylandroads.com/businesswithsha/ bizStdsSpecs/desManualStdPub/publicationsonline/oots/internet_signbook.asp

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED. REFER TO PROJECT REQUIREMENTS FOR MORE DETAIL.

DEPARTMENT OF TRANSPORTATION DIVISION OF TRAFFIC ENGINEER AND OPERATIONS MONTGOMERY COUNTY, MD APPROVED For SIGNING AND MARKING BY Mark Terry DATE 12/22/21

ORIENTATION OF SIGN FACES



 $^{igapsymbol{ iny}}$ under 30 feet from travelled roadway to near edge of Sign - 93 $^{igapsymbol{ iny}}$ away FROM THE ROAD TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 90^

SIGN LOCATIONS

- 1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
- 2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT

POSITION PANEL SO FACE IS PLUMB.

2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE) A) ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - SEE DIAGRAM. B) ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90° WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN C) ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.

D) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT

POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB. 2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINAIRES,

SUPPORTS, AND/OR SIGNS. 3. HORIZONTAL ALIGNMENT

A) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.

B) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE. C) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL

EDGE OF THE MAINLINE ROADWAY. 4. VERTICAL CLEARANCE

A) OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'-9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION. B) IF THE CONTRACTOR CANNOT OBTAIN 17'-9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DESIGN DIVISION FOR ASSISTANCE. C) ON ALL OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF SIGN: 20'-9".

PROJECT REQUIREMENTS

ALL NEW SIGNS ON THIS PROJECT SHALL BE FABRICATED FROM SHEETING WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER:

- 1. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDSHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (2021) AND SUBSEQUENT REVISIONS
- 2. LISTED ON MDSHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (QPL)

PROJECT REQUIREMENTS CONT'D

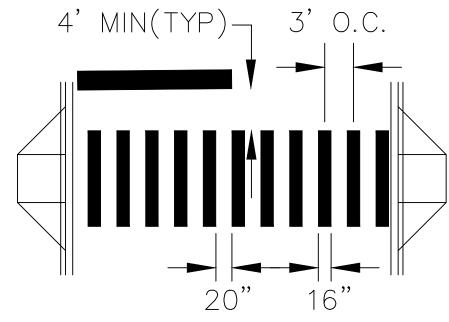
- 3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS
- A) GUIDE, EXIT GORE, AND GENERAL INFORMATION SIGNS-RETROREFLECTIVE SHEETING FOR GUIDE SIGNS, EXIT GORE, AND GENERAL INFORMATION (INCLUDES WHITE ON GREEN, WHITE ON BLUE, WHITE ON BROWN AND THE REVERSE OF THESE COLORS) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX LEGEND ON ASTM TYPE IX BACKGROUND. REGULATORY AND WARNING MESSAGES WITHIN GUIDE SIGNS SHALL BE NON-REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
- B) WARNING SIGNS RETROREFLECTIVE SHEETING FOR BLACK ON FLUORESCENT YELLOW WARNING SIGNS SHALL BE NON-REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE GUIDELINES FOR REGULATORY SIGNS.
- C) SCHOOL SIGNS RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (BLACK ON FLUORESCENT YELLOW AND BLACK ON FLUORESCENT YELLOW GREEN) SHALL BE NON-REFLECTIVE BLACK LEGEND ON BACKGROUND SHEETING WHICH MEETS OR EXCEEDS THE REQUIREMENTS FOR ASTM TYPE IX SHEETING. REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.
- D) REGULATORY SIGNS -FALL INTO THREE SUBCATEGORIES:
- i. REGULATORY SIGNS (STOP, YIELD, DO NOT ENTER AND WRONG WAY) RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES WHITE ON RED AND RED ON WHITE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX SHEETING.
- ii. ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY (INCLUDES RED ON WHITE, GREEN ON WHITE, BLUE ON WHITE, BLACK ON WHITE AND THE REVERSE OF THESE COLORS) SHALL BE ASTM TYPE I LEGEND ON ASTM TYPE BACKGROUND.
- iii. ALL OTHER REGULATORY SIGNS RETROREFLECTIVE SHEETING FOR THESE SIGNS AND THEIR SUPPLEMENTAL PANELS (INCLUDES BLACK ON WHITE) SHALL BE NON-REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND. WHERE RED IS SPECIFIED, OR WHERE THE COLOR OF THE SIGN IS WHITE ON BLACK, THE LEGEND SHALL BE ASTM TYPE IV RETROREFLECTIVE SHEETING ON NON-REFLECTIVE BLACK BACKGROUND. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE GUIDELINES FOR WARNING
- E) ROUTE MARKERS -RETROREFLECTIVE SHEETING FOR ROUTE MARKERS (INCLUDES BLACK ON WHITE, GREEN ON WHITE, WHITE ON GREEN, WHITE ON RED/BLUE) SHALL MEET THE REQUIREMENTS OF GUIDE SIGNS ABOVE WHEN SPECIFIED AS THE LEGEND OF A GUIDE SIGN. RETROREFLECTIVE SHEETING FOR ALL INDEPENDENT ROUTE MARKERS AND THEIR AUXILIARY PANELS SHALL BE ASTM TYPE IV AND/OR NON-REFLECTIVE BLACK LEGEND ON ASTM TYPE IV BACKGROUND.
- F) LOGOS AND/OR GRAPHICS -WITHIN SIGNS SHALL FOLLOW THE GUIDELINES FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER
- G) CIVIL DEFENSE SIGNS AND OTHER SIGNS NOT SPECIFICALLY FALLING INTO ONE OF THE CATEGORIES ABOVE, SHALL FOLLOW THE GUIDELINES FOR THE SIGN CLASSIFICATION THAT MOST CLOSELY MATCHES THE COLOR(S) OF THE PROPOSED SIGN.
- 4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE

WIDTH OF SHEET ALUMINUM BLANKS.

LONGEST DIMENSION MINIMUM THICKNESS

UP TO 12"_____ __0.040" GREATER THAN 12" TO 24" _0.063" GREATER THAN 24" TO 36" GREATER THAN 36" TO 48" OVER 48"___ __0.125"

5. FOR STREET NAME SIGNS REFER TO COUNTY DETAIL ON DRAWING SN-08.



CAPITAL PARK AND PLANNING COMMISSION, DEPARTMENT OF PARK AND PLANNING M-NCPPC PERMIT NO. 2020-034 PARK J33 REVIEWED BY Brian Lewandowski APPROVED BY CHIEF, CONSTRUCTION SECTION DATE APPROVED 12/14/2021 THIS IS NOT A PERMIT TO

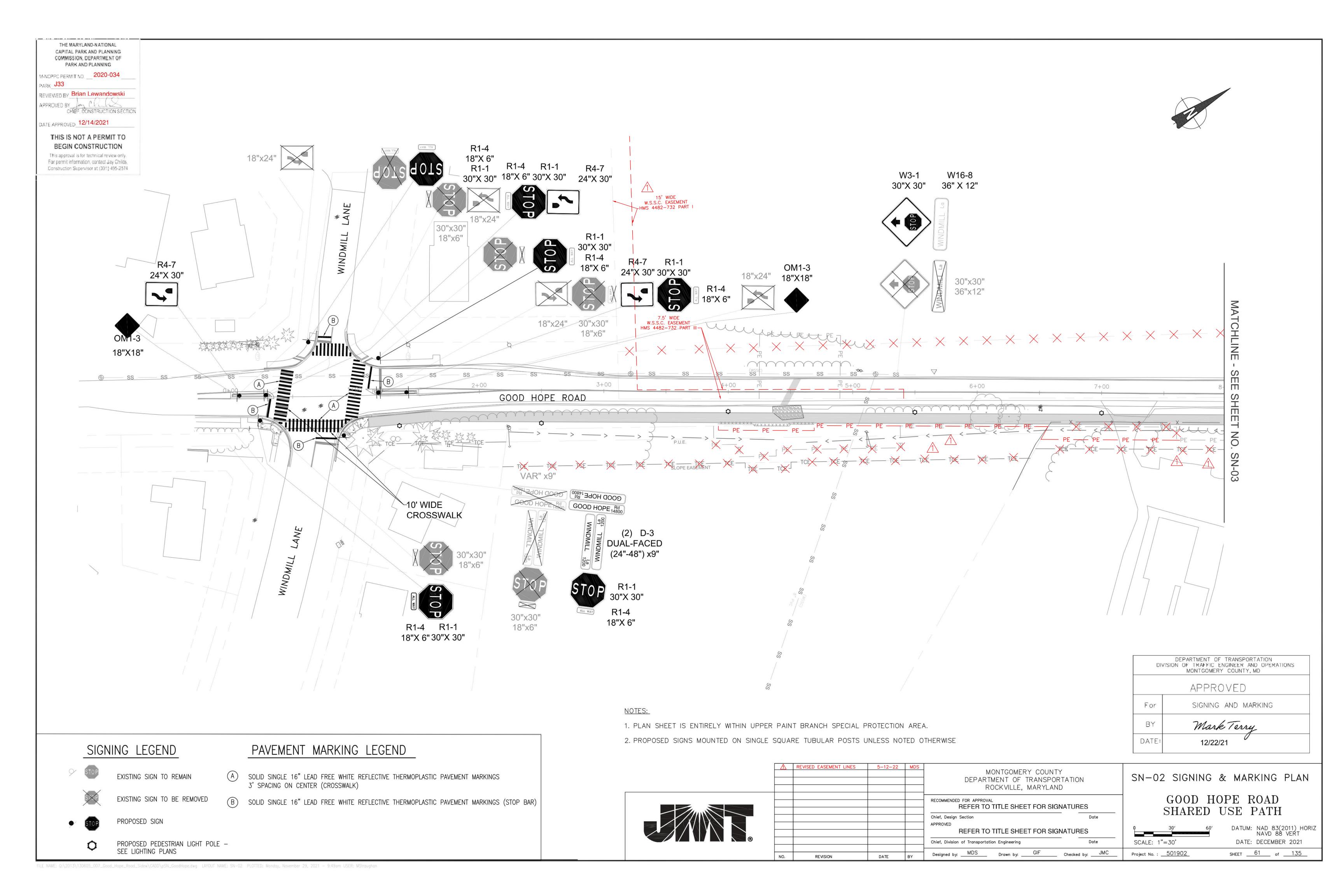
For permit information, contact Jay Childs,

Construction Supervisor at (301) 495-2574

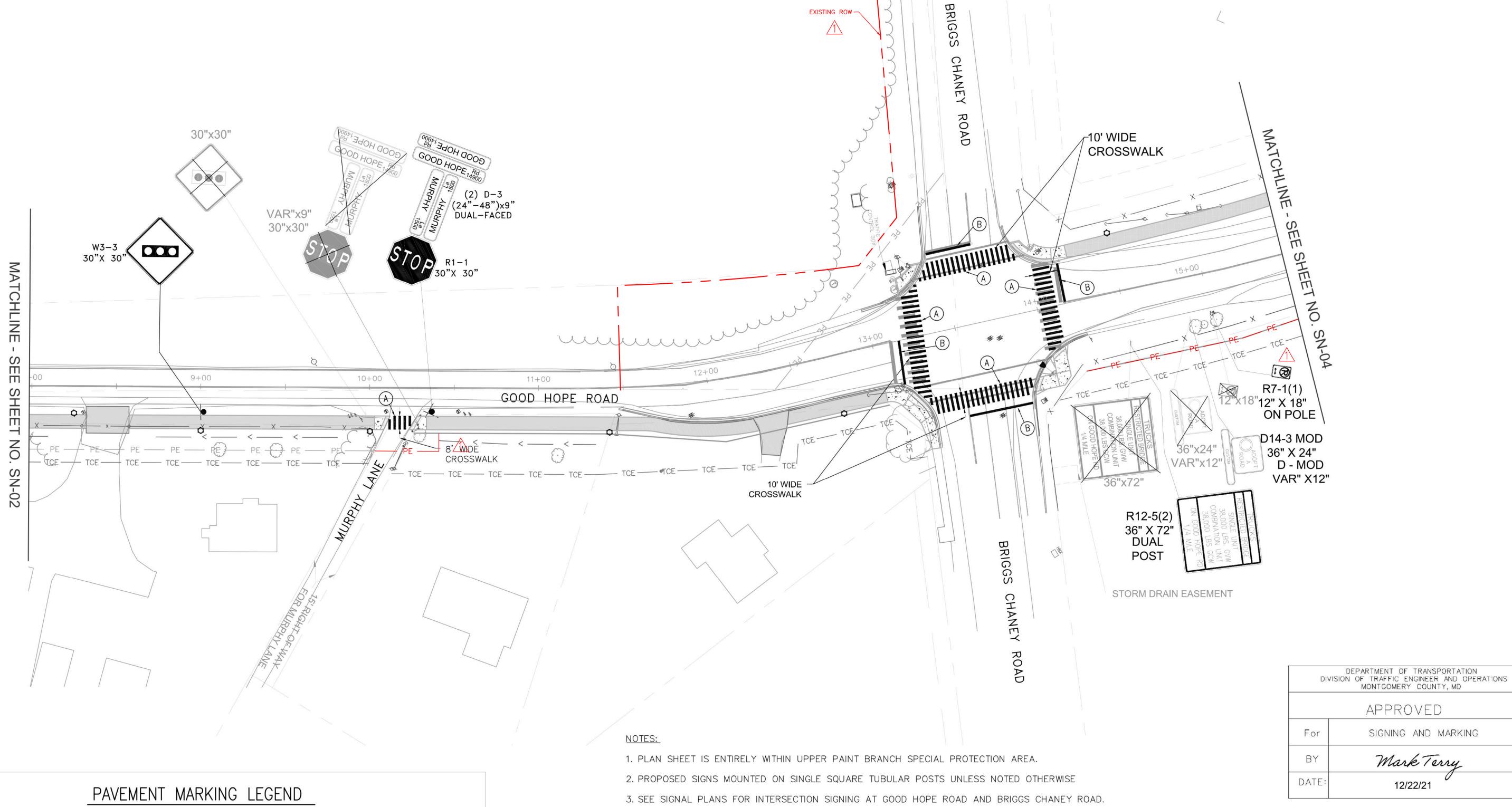
THE MARYLAND-NATIONAL

BEGIN CONSTRUCTION This approval is for technical review only. LADDER BAR CROSSWALK DETAIL

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION SN-01 SIGNING NOTES & DETAILS ROCKVILLE, MARYLAND GOOD HOPE ROAD RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES SHARED USE PATH Chief, Design Section APPROVED DATUM: NAD 83(2011) HORIZ NAVD 88 VERT REFER TO TITLE SHEET FOR SIGNATURES Chief, Division of Transportation Engineering SCALE: 1"=30' DATE: DECEMBER 2021 SHEET <u>60</u> of <u>135</u> Designed by: ___MDS __ Drawn by: ___MDS __ Checked by: ___JMC Project No. : <u>501902</u> REVISION



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION, DEPARTMENT OF PARK AND PLANNING M-NCPPC PERMIT NO. ____ 2020-034 PARK J33 REVIEWED BY Brian Lewandowski APPROVED BY CHIEF, CONSTRUCTION SECTION DATE APPROVED 12/14/2021 THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574



PIOP FIX

PROPOSED SIGN

SIGNING LEGEND

PROPOSED PEDESTRIAN LIGHT POLE — SEE LIGHTING PLANS

EXISTING SIGN TO REMAIN

EXISTING SIGN TO BE REMOVED

SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS 3' SPACING ON CENTER (CROSSWALK)

B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)

B

REVISION

		Y			
	Λ	REVISED EASEMENT LINES	5-12-22	MDS	
					MONTGOMERY COUNTY
\vdash				_	DEPARTMENT OF TRANSPORTATION
-					
					ROCKVILLE, MARYLAND
					RECOMMENDED FOR APPROVAL
-					REFER TO TITLE SHEET FOR SIGNATURES
					Chief, Design Section Date
\vdash					APPROVED
\perp					APPATOR AND CONTRACTOR TO
					REFER TO TITLE SHEET FOR SIGNATURES
					10 00

DATE BY

Chief, Division of Transportation Engineering

Designed by: MDS Drawn by: GIF

Checked by: JMC

GOOD HOPE ROAD

SN-03 SIGNING & MARKING PLAN

GOOD HOPE ROAD SHARED USE PATH

DATUM: NAD 83(2011) HORIZ NAVD 88 VERT

SCALE: 1"=30' DATE: DECEMBER 2021

Project No.: 501902 SHEET 62 of 135



PARK J33

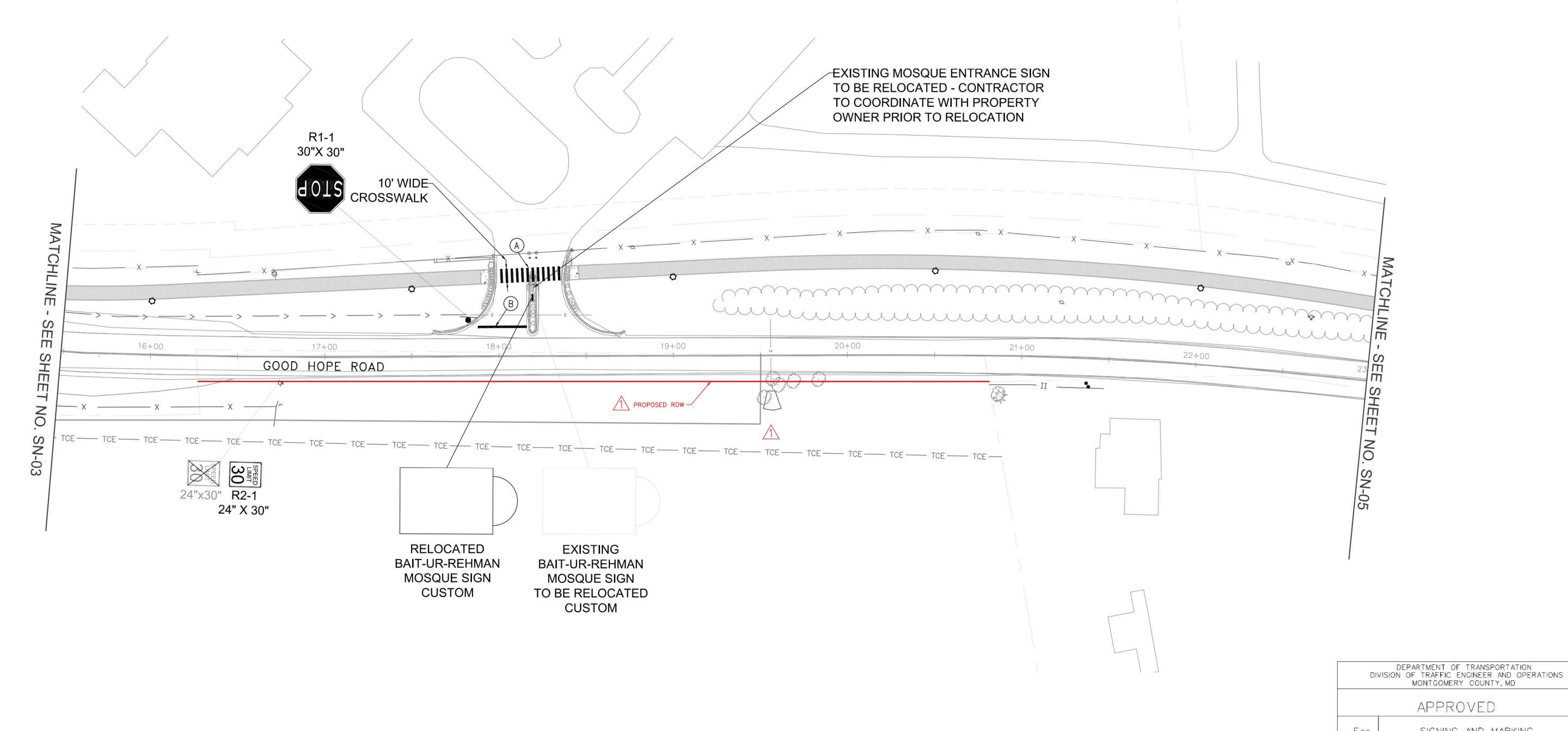
REVIEWED BY Brian Lewandowski APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574





SIGNING LEGEND



EXISTING SIGN TO REMAIN



EXISTING SIGN TO BE REMOVED





PROPOSED SIGN

PROPOSED PEDESTRIAN LIGHT POLE -SEE LIGHTING PLANS

NOTES:

- 1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
- 2. PROPOSED SIGNS MOUNTED ON SINGLE SQUARE TUBULAR POSTS UNLESS NOTED OTHERWISE

REVISION

-

<u> </u>	REVISED ROW & EASEMENTS	5-12-22	MDS	
				MONTGOMERY COUNTY
		Ŷ		DEPARTMENT OF TRANSPORTATION
				ROCKVILLE, MARYLAND
		,		15-17-15-15-15-15-15-15-15-15-15-15-15-15-15-
				RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES
				——————————————————————————————————————

REFER TO TITLE SHEET FOR	SIGNATURES
Chief, Design Section	Date
APPROVED	
REFER TO TITLE SHEET FOR	SIGNATURES

Designed by: MDS Drawn by: GIF Checked by: JMC

Chief, Division of Transportation Engineering

SN-04 SIGNING & MARKING PLAN

DATE:

SIGNING AND MARKING

Mark Terry

12/22/21

GOOD HOPE ROAD SHARED USE PATH

0 30'	60′	DATUM	M: NAD NAVI	83(2) 88	O11) HC VERT	RIZ
SCALE: 1"=30'		DATE	E: DECE	MBER	2021	
Project No. : 5019	002	SHEET _	63	of _	135	

PAVEMENT MARKING LEGEND

3' SPACING ON CENTER (CROSSWALK)

A SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS

(B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION, DEPARTMENT OF PARK AND PLANNING M-NCPPC PERMIT NO. 2020-034 PARK J33

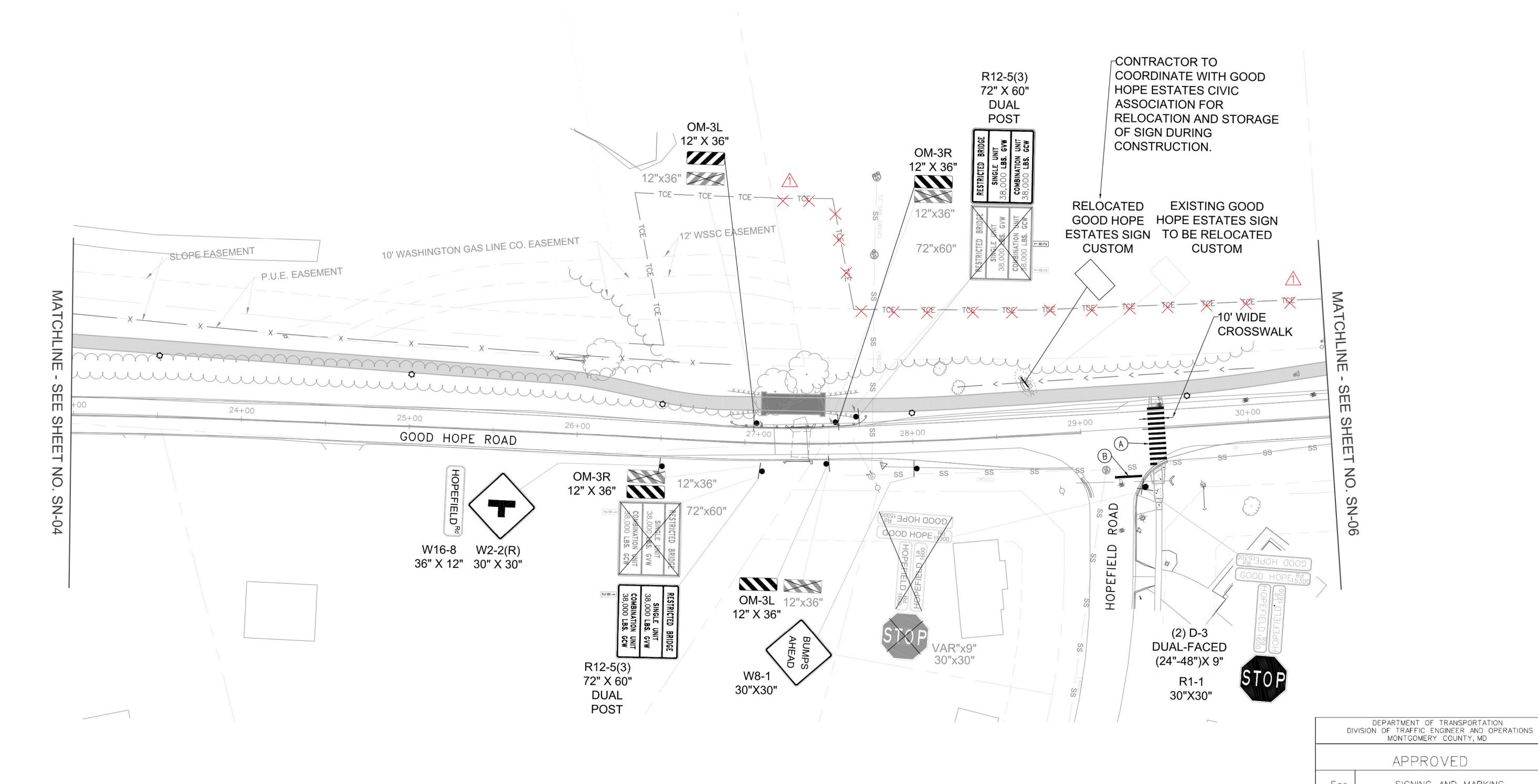
REVIEWED BY Brian Lewandowski APPIROVED BY__ CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION This approval is for technical review only...

For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574





SIGNING LEGEND

EXISTING SIGN TO REMAIN

SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS 3' SPACING ON CENTER (CROSSWALK)

EXISTING SIGN TO BE REMOVED

(B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)

PAVEMENT MARKING LEGEND

PROPOSED SIGN

PROPOSED PEDESTRIAN LIGHT POLE — SEE LIGHTING PLANS

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

2. PROPOSED SIGNS MOUNTED ON SINGLE SQUARE TUBULAR POSTS UNLESS NOTED OTHERWISE

Λ	REVISED EASEMENTS	5-12-22	MDS	MONTO ONEDW O ONEDW	
				MONTGOMERY COUNTY	
				DEPARTMENT OF TRANSPORTATION	
				ROCKVILLE, MARYLAND	
				RECOMMENDED FOR APPROVAL	
				REFER TO TITLE SHEET FOR SIGNATURES	3
					W. 1995
				Chief, Design Section	Date
				APPROVED	

DATE

REVISION

Chief, Division of Transportation Engineering

Designed by: MDS Drawn by: MDS

GOOD HOPE ROAD SHARED USE PATH REFER TO TITLE SHEET FOR SIGNATURES

Checked by: JMC

DATE

DATUM: NAD 83(2011) HORIZ NAVD 88 VERT SCALE: 1"=30' DATE: DECEMBER 2021 Project No. : 501902 SHEET 64 of 135

APPROVED

Mark Terry

12/22/21

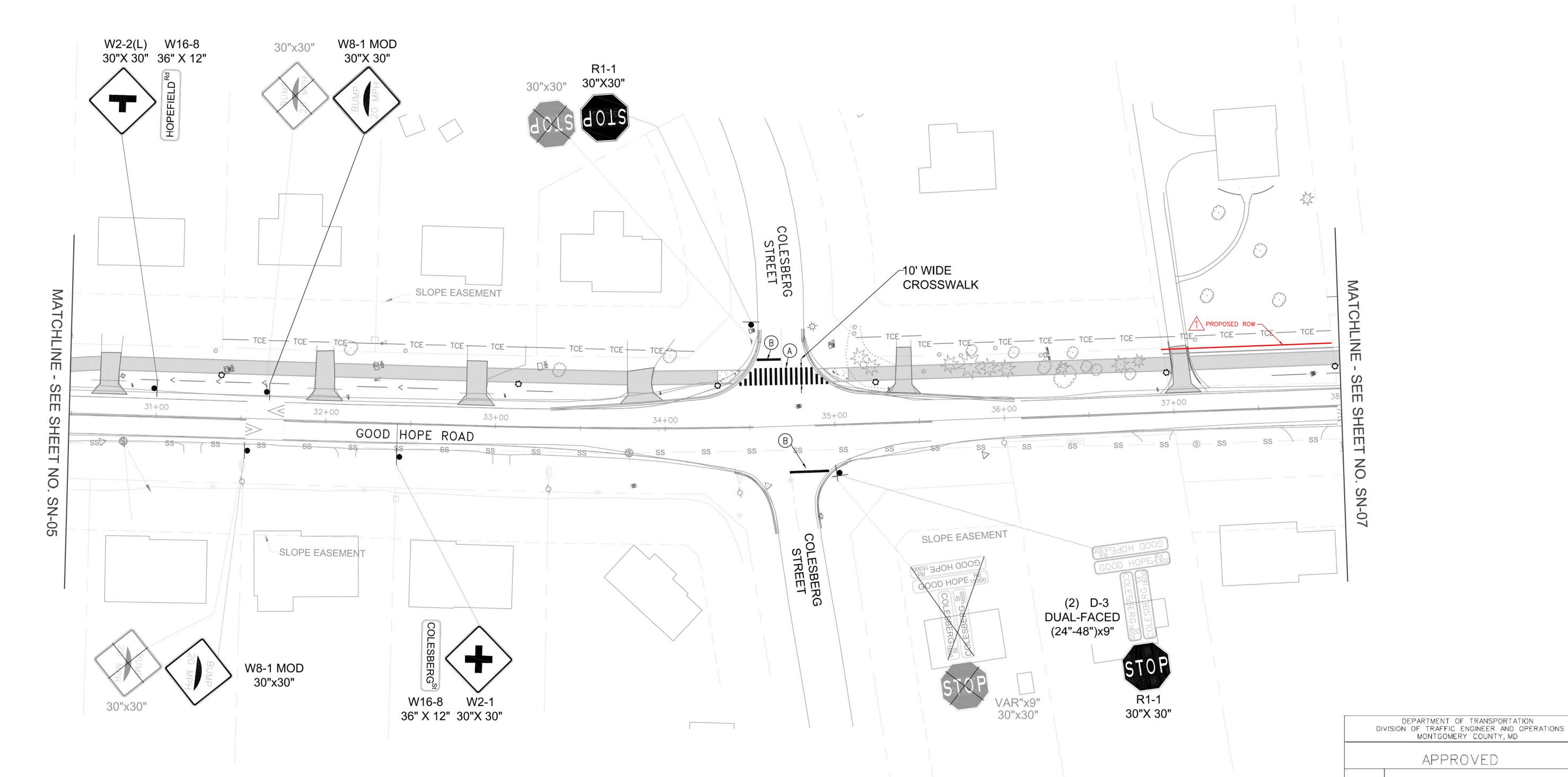
SN-05 SIGNING & MARKING PLAN

SIGNING AND MARKING



This approval is for technical review only.

For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574



SIGNING LEGEND

EXISTING SIGN TO REMAIN

FILE NAME: Q:\2013\130605_007_Good_Hope_Road_Sidew\CADD\pSN_GoodHope.dwg LAYOUT NAME: SN-06 PLOTTED: Thursday, December 09, 2021 - 2:43pm USER: MStraughan

PAVEMENT MARKING LEGEND

A SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS 3' SPACING ON CENTER (CROSSWALK)

B) SOLID SINGLE 16" LEAD FREE WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS (STOP BAR)

EXISTING SIGN TO BE REMOVED

PROPOSED SIGN

PROPOSED PEDESTRIAN LIGHT POLE — SEE LIGHTING PLANS

NOTES:

- 1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.
- 2. PROPOSED SIGNS MOUNTED ON SINGLE SQUARE TUBULAR POSTS UNLESS NOTED OTHERWISE

-				
Λ	REVISED EASEMENT LINES	5-12-22	MDS	
				MONTGOMERY COUNTY
				DEPARTMENT OF TRANSPORTATION
				ROCKVILLE, MARYLAND
				·
				RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES
				NEITER TO TITLE SHEET FOR SIGNATURES
				Chief, Design Section Dat
			1	APPROVED

GOOD HOPE ROAD SHARED USE PATH

DATE:

Checked by: JMC

DATUM: NAD 83(2011) HORIZ NAVD 88 VERT DATE: DECEMBER 2021 SCALE: 1"=30' SHEET 65 of 135 Project No. : __501902_

APPROVED

SIGNING AND MARKING

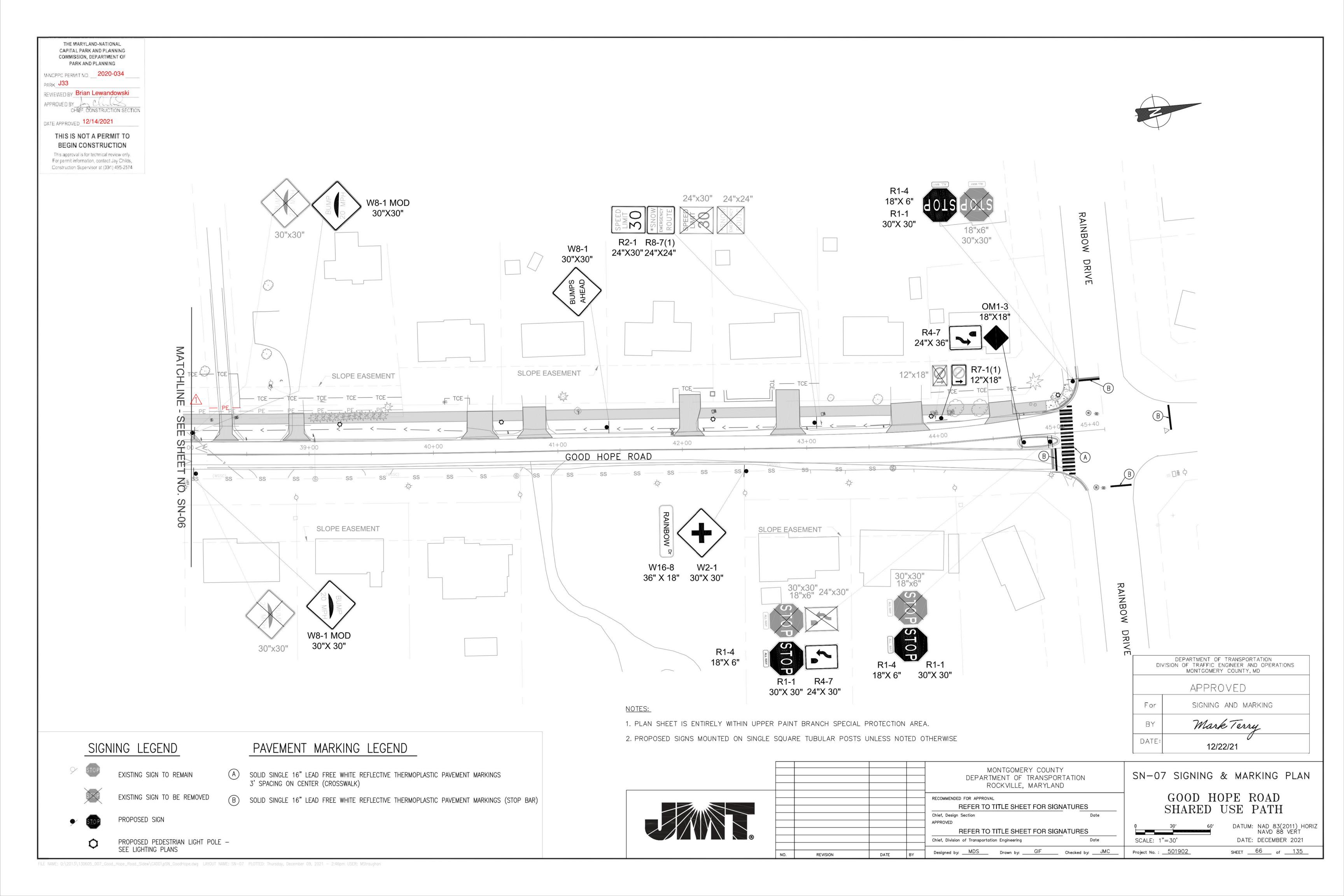
Mark Terry

12/22/21

SN-06 SIGNING & MARKING PLAN

REFER TO TITLE SHEET FOR SIGNATURES Chief, Division of Transportation Engineering Designed by: MDS Drawn by: GIF

DATE



M-NCPPC PERMIT NO. ___2020-034 __ PARK_ J33

APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

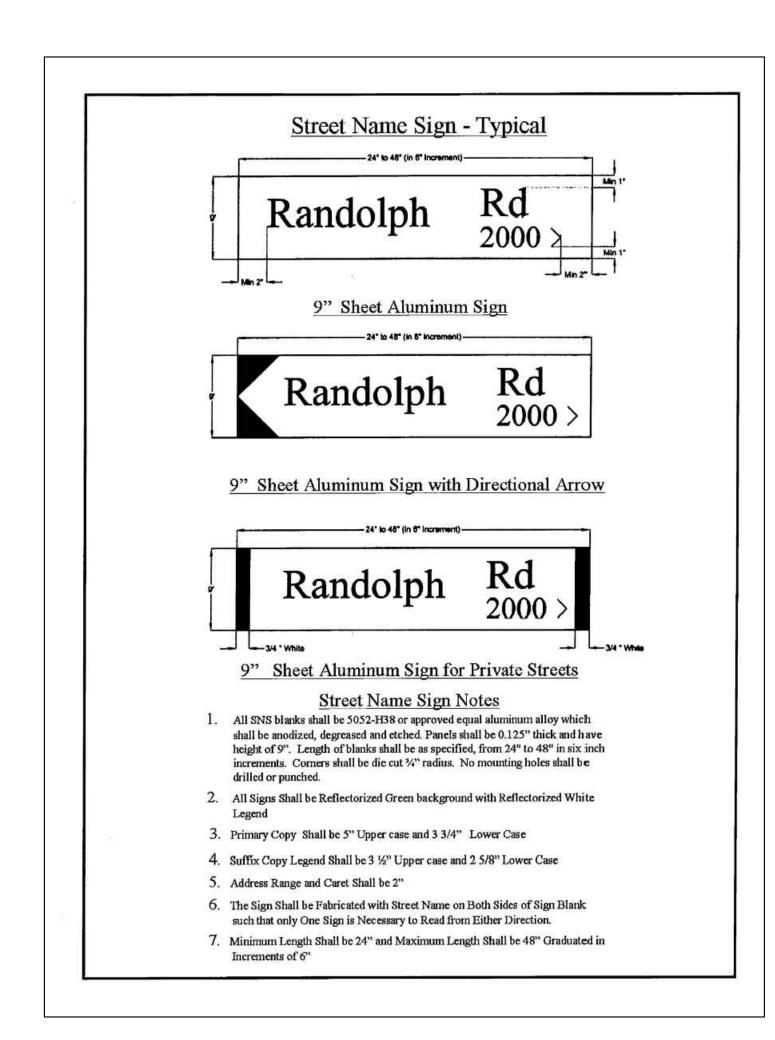
THIS IS NOT A PERMIT TO

For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

BEGIN CONSTRUCTION

This approval is for technical review only.

	,	
SHEET	REMARKS	LINEAR FEET
SN-02		
	16 INCH SOLID WHITE THERMOPLASTIC	604
SN-03		
	16 INCH SOLID WHITE THERMOPLASTIC	909
SN-04		
	16 INCH SOLID WHITE THERMOPLASTIC	148
SN-05		
	16 INCH SOLID WHITE THERMOPLASTIC	132
SN-06		
	16 INCH SOLID WHITE THERMOPLASTIC	176
SN-07		
	16 INCH SOLID WHITE THERMOPLASTIC	251
TOTAL	16 INCH SOLID WHITE THERMOPLASTIC	2220



STREET NAME SIGN DETAIL

SHEET	REMARKS	SUPPORTS	SHEET ALUMINUM SIGN (SF)
	D4 7 (04"V70")	CINIOLE COLLABE TUBULAR	
SN-02	R4-7 (24"X30")	SINGLE SQUARE TUBULAR	5
	OM1-3 (18"X18")		2.25
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-4 (18"X6")		0.75
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-4 (18"X6")		0.75
	R4-7 (24"X30")		5
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-4 (18"X6")		0.75
	R4-7 (24"X30")	SINGLE SQUARE TUBULAR	5
	R1-1 (30"X30")		6.25
	R1-4 (18"x6")		2.25
	OM1-3 (18"X18")	SINGLE SQUARE TUBULAR	3
	W3-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W16-8 (36"X12")	SINGLE SQUARE TUBULAR	3
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-4 (18"X6")		0.75
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-4 (18"X6")	, , , , , , , , , , , , , , , , , , , ,	0.75
	D-3 (VAR"X 9")	SINGLE SQUARE TUBULAR	2.25
	D-3 (VAR X 9")		2.25
	D-3 (VAR X 9)	2.25	
SN-03	W3-3 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	D-3 (VAR"X 9")		2.25
	D-3 (VAR"X 9")		2.25
	R7-1(1) (12"X18")	ON EXISTING UTIL POLE	1.5
	D14-3(MOD) (24"X36")	SINGLE SQUARE TUBULAR	6
	D-MOD (VAR"X 12")	· · · · · · · · · · · · · · · · · · ·	6
	R12-5(2) (36"X72")	DOUBLE SQUARE TUBULAR	18
	K12-3(2) (36 X/2)		10
SN-04	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R2-1 (24"X30")	SINGLE SQUARE TUBULAR	5
	, , , , , , , , , , , , , , , , , , , ,		
SN-05	OM-3L (12"X36")	SINGLE SQUARE TUBULAR	3
	OM-3R (12"X36")	SINGLE SQUARE TUBULAR	3
	R12-5(3) (72"X60")	DOUBLE SQUARE TUBULAR	30
	W16-8 (36"X12")	SINGLE SQUARE TUBULAR	3
	W2-2(R) (30"X30")	SINGLE SQUARE TUBULAR	6.25
	OM-3R (12"X36")	SINGLE SQUARE TUBULAR	3
	R12-5(3) (72"X60")	DOUBLE SQUARE TUBULAR	30
	OM-3L (12"X36")	SINGLE SQUARE TUBULAR	3
	W8-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	D-3 (VAR"X 9")	SINGLE SQUARE TUBULAR	2.25
	D-3 (VAR"X 9")		2.25

SHEET	REMARKS	SUPPORTS	SHEET ALUMINUM SIGN (SF)
		23.1 2	STEET ALEMINON STON (ST)
SN-06	W2-2(L) (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W16-8 (36"X12")	·	3
	W8-1(MOD) (30"X30")	SINGLE SQUARE TUBULAR	6.25
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W8-1(MOD) (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W2-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W16-8 (36"X12")		3
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	6.25
	D-3 (VAR"X 9")		2.25
	D-3 (VAR"X 9")		2.25
	WO 4(MOD) (70%/70%)	011101E 001115E EUSTIN 15	1 0.05
SN-07	W8-1(MOD) (30"X30")	SINGLE SQUARE TUBULAR	6.25
	W2-1 (24"X30")	SINGLE SQUARE TUBULAR	5
	W8-7(1) (24"X24")	SINGLE SQUARE TUBULAR	4
	W8-1 (30"X30")	CINIOLE COLLABE TUBULAR	6.25
	R1-4 (6"X18")	SINGLE SQUARE TUBULAR	0.75
	R1-1 (30"X30")	CINCLE COLLABE TUDULAR	6.25
	R4-7 (24"X36")	SINGLE SQUARE TUBULAR	5
	OM1-3(18"X18")	CINCLE COLLABE TUDULAR	2.25
	R7-1(1) (12"X18")	SINGLE SQUARE TUBULAR	1.5
	W8-1(MOD) (30"X30")	SINGLE SQUARE TUBULAR	6.25 6.25
	W8-1 (30"X30")	SINGLE SQUARE TUBULAR SINGLE SQUARE TUBULAR	3
	W16-8 (36"X12")	SINGLE SQUARE TOBULAR	6.25
	W2-1 (30"X30")	SINGLE SQUARE TUBULAR	0.75
	R1-4 (18"X6")	SINGLE SQUARE TOBULAR	6.25
	R1-1 (30"X30")	SINGLE SQUARE TUBULAR	5
	R4-7 (24"X30")	SINGLE SQUARE TOBOLAR	0.75
	R1-4 (18"X6")		6.25
	R1-1 (30"X30")		0.25
TOTAL			361.50

DEPARTMENT OF TRANSPORTATION DIVISION OF TRAFFIC ENGINEER AND OPERATIONS MONTGOMERY COUNTY, MD						
APPROVED						
For	SIGNING AND MARKING					
BY	Mark Terry					
DATE:	12/22/21					

|--|

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND
REFER TO TITLE SHEET FOR SIGNATURES
Chief, Design Section Date APPROVED REFER TO TITLE SHEET FOR SIGNATURES

REVISION

Chief, Division of Transportation Engineering

Designed by: MDS Drawn by: MDS Checked by: JMC

SN-08
SIGNING NOTES & DETAILS
GOOD HOPE ROAD
SHARED USE PATH

	0	30′	60′	DATUN	M: NAD NAV	83(2 D 88	011) HOF VERT	RIZ
	SCALE:	1"=30'		DATE	E: DEC	EMBER	2021	
-	Project No	o. : <u>501902</u>		SHEET _	67	_ of _	135	

M-NCPPC PERMIT NO. ____ 2020-034 PARK J33

REVIEWED BY Brian Lewandowski APPROVED BY CONSTRUCTION SECTION

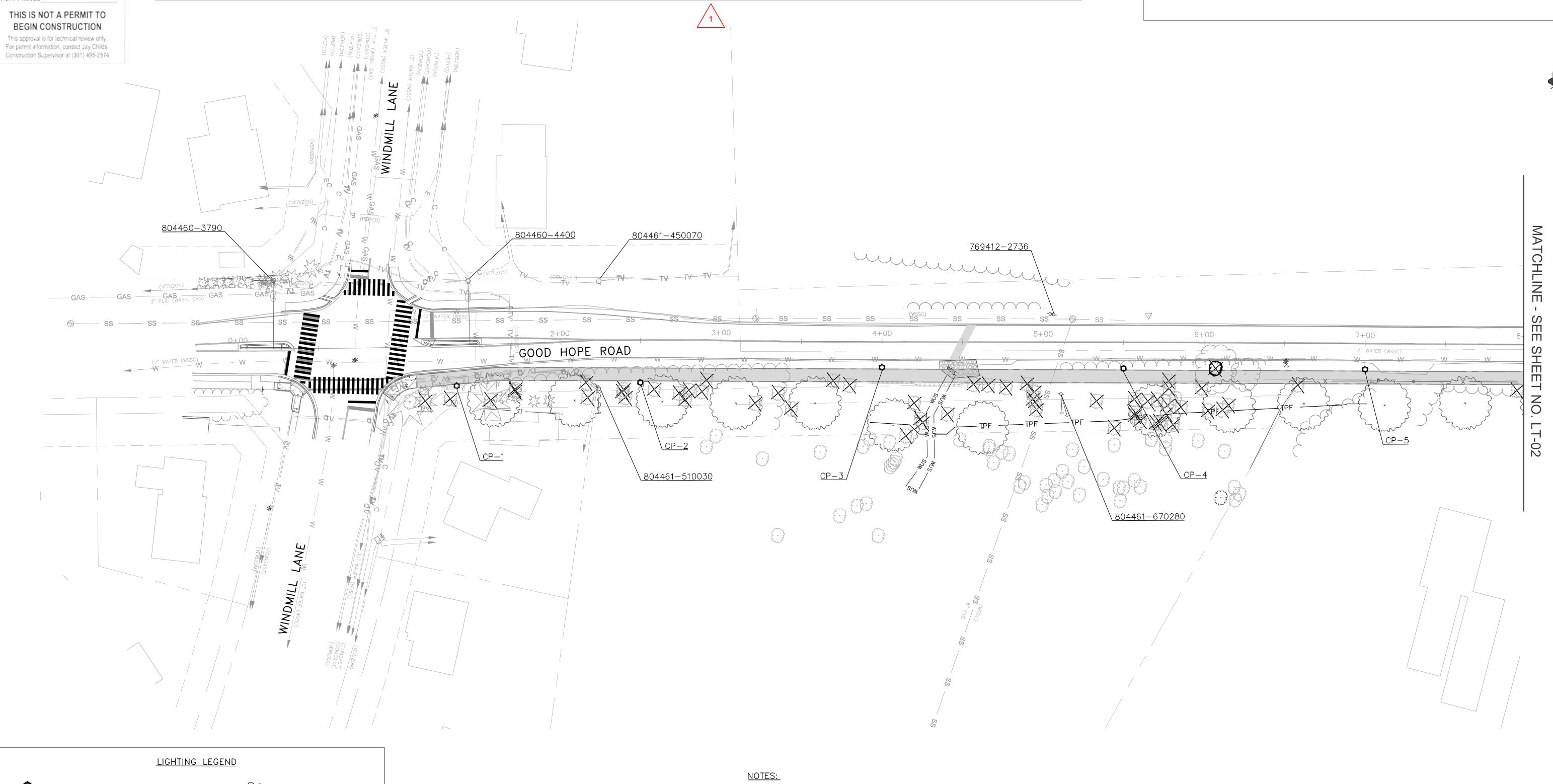
DATE APPROVED 12/14/2021

This approval is for technical review only. For permit information, contact Jay Childs,

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
_	804460-3790	0+22.09	42.90' LT	521649.18	1316746.84	GOOD HOPE ROAD	EXISTING	EXISTING	EXISTING	EXISTING POLE
14982	CP-1	1+35.00	25.18' RT	521710.55	1316862.98	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
_	804460-4400	1+44.10	39.59' LT	521751.17	1316811.72	GOOD HOPE ROAD	EXISTING	EXISTING	EXISTING	EXISTING POLE
14984	CP-2	2+50.00	26.00' RT	521808.06	1316922.11	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
14986	CP-3	4+00.00	16.00' RT	521939.93	1316944.30	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
14988	CP-4	5+50.00	16.00' RT	522066.42	1317074.92	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
14990	CP-5	7+00.00	16.00' RT	522192.92	1317155.54	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS

<u>LIGHTING NOTES:</u>

- 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN.
- 2. PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO. 3. ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
- 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE.
- 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.



PROPOSED LED COLONIAL POST PROPOSED TREE PEDESTRIAN LIGHT POLE (ULTIMATE CANOPY) EXISTING LIGHT & POLE TO REMAIN PROPOSED LED LIGHT ON POWER POLE EXISTING TREE EXISTING LIGHT ON POWER POLE TO REMAIN POLE NUMBER

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

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				ROCKVILLE, MARYLAND	
				RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES	3
				Chief, Design Section APPROVED	Date
				REFER TO TITLE SHEET FOR SIGNATURES	<u> </u>
				Chief, Division of Transportation Engineering	Date
NO). REVISION	DATE	BY	Designed by: <u>MDS</u> Drawn by: <u>MDS</u> Checked by	: JMC

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND

GOOD HOPE ROAD SHARED USE PATH DATUM: NAD 83(2011) HORIZ NAVD 88 VERT SCALE: 1"=30' DATE: DECEMBER 2021

Project No. : <u>501902</u>

LT-01 LIGHTING PLAN

SHEET <u>68</u> of <u>135</u>

14992 CP-6 8+25.00 16.00' RT 522298.33 1317222.72 GOOD HO 14994 CP-7 10+00.00 16.00' RT 522440.68 1317325.31 GOOD HO 14996 CP-8 11+75.00 26.15' RT 522560.35 1317401.58 GOOD HO 14998 CP-9 12+75.00 35.18' RT 522683.77 1317466.43 GOOD HO - 80462-990000 13+26.10 48.50' LT 522759.24 1317404.41 GOOD HO EX SIGNAL POLE EX SIGNAL POLE 14+01.84 39.00' RT 522801.45 1317512.60 GOOD HO	T NAME WATTAGE LAMP TYPE LUMINAIRE STYLE POLE STYLE OPE ROAD 70-27 LED PROPOSED COLONIAL POST 16' BLACK FIBERGLASS OPE ROAD 70-27 LED PROPOSED COLONIAL POST 16' BLACK FIBERGLASS OPE ROAD 70-27 LED PROPOSED COLONIAL POST 16' BLACK FIBERGLASS OPE ROAD 70-27 LED PROPOSED COLONIAL POST 16' BLACK FIBERGLASS OPE ROAD EXISTING EXISTING EXISTING EXISTING OPE ROAD 150-27 LED PROPOSED COBRAHEAD EXISTING OPE ROAD 70-27 LED PROPOSED COBRAHEAD EXISTING OPE ROAD 70-27 LED PROPOSED COLONIAL POST 16' BLACK FIBERGLASS	LIGHTING NOTES: 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN. 2. PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO. 3. ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES. 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE. 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.
SE	BRIOGS CHANETY ROAD 11100 802151-050620 GOOD HOPE ROAD 11100 123-50 BRIOGS CHANETY ROAD 11100 123-50 BRIO	PROPOSED LUMINAIRE. SEE PLAN SHEET SG-01 FOR CONSTRUCTION DETAILS.
LICHTING LECEND		DATE APPROVED_12/14/2021
<u>LIGHTING LEGEND</u>	NOTES:	THIS IS NOT A PERMIT TO
PROPOSED LED COLONIAL POST PEDESTRIAN LIGHT POLE PROPOSED TREE (ULTIMATE CANOPY)	1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.	BEGIN CONSTRUCTION This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574
EXISTING LIGHT & POLE TO REMAIN	1 Revised Luminaire Wattage 03/11/22 MDS	MONTGOMERY COUNTY
PROPOSED LED LIGHT ON POWER POLE EXISTING TREE		DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND LT-02 LIGHTING PLAN
EXISTING LIGHT ON POWER POLE		RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES Chief, Design Section Chief, Design Section Chief Section COOD HOPE ROAD SHARED USE PATH
TO REMAIN		APPROVED REFER TO TITLE SHEET FOR SIGNATURES 0 30' 60' DATUM: NAD 83(2011) HORIZ NAVD 88 VERT
POLE NUMBER		Chief, Division of Transportation Engineering Date SCALE: 1"=30' DATE: DECEMBER 2021 Designed by MDS Drawn by MDS Checked by JMC Project No : 501902 SHEET 69 of 135

SHEET <u>69</u> of <u>135</u>

Project No. : <u>501902</u>

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XXX POLE NUMBER

THE MARYLAND-NATIONAL
CAPITAL PARK AND PLANNING
COMMISSION, DEPARTMENT OF
PARK AND PLANNING

1CPPC PERMIT NO. 2020-034

M-NCPPC PERMIT NO. ___2020-034 ___ PARK_ J33

REVIEWED BY Brian Lewandowski

APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

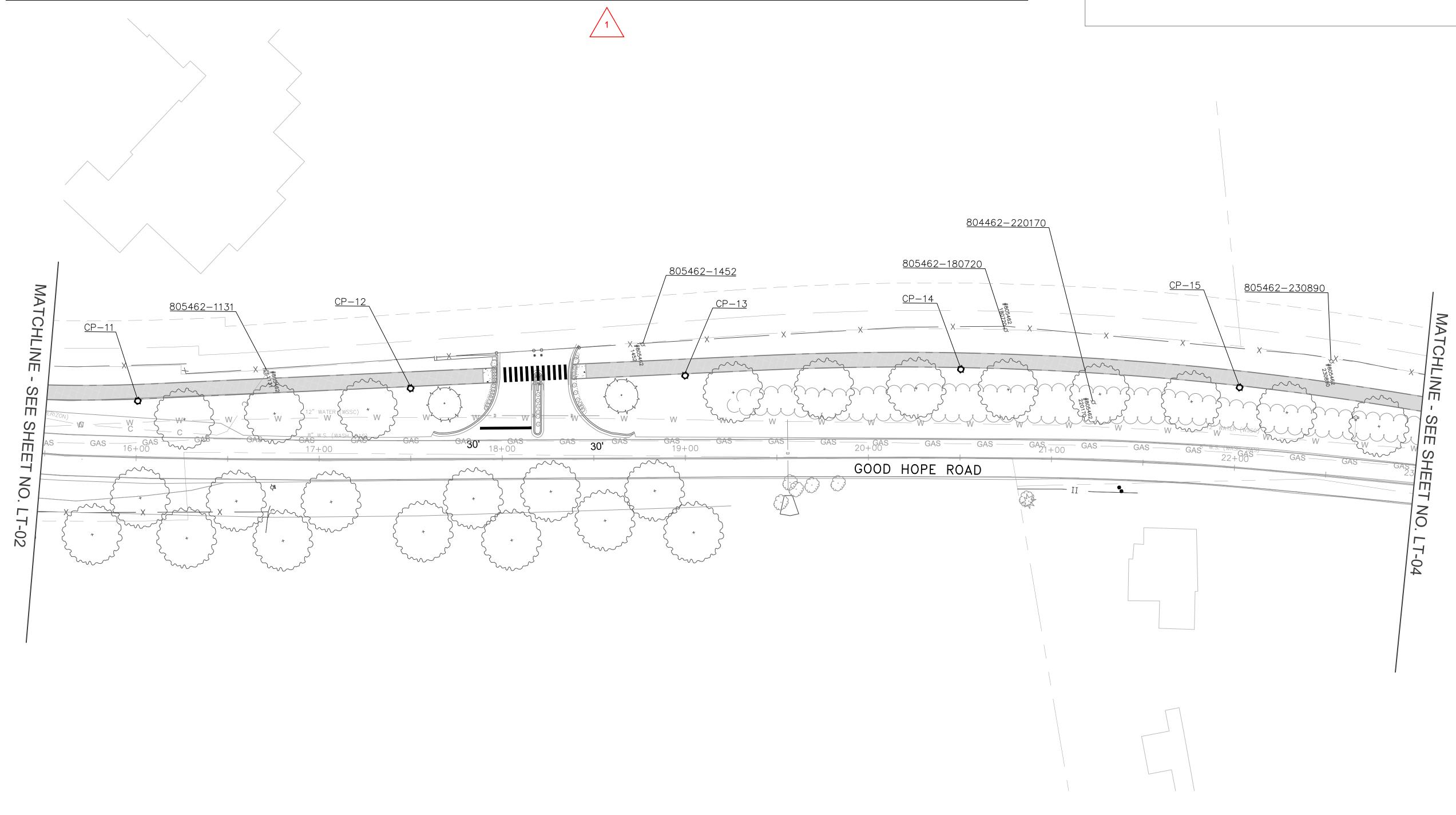
THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

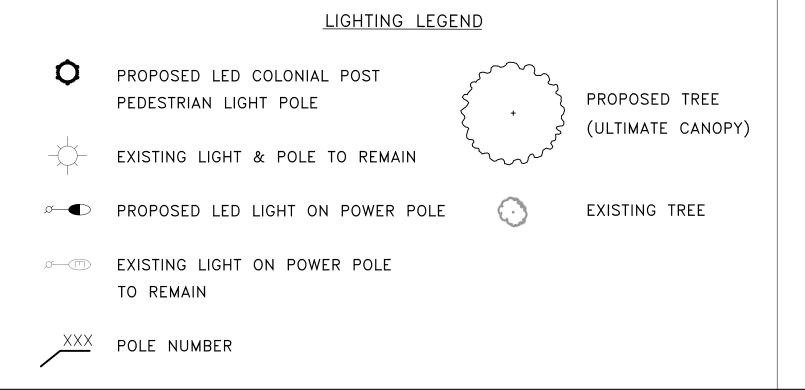
This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
15003	CP-11	16+00	31.18' LT	523010.93	1317509.09	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15005	CP-12	17+50	38.29' LT	523157.45	1317536.96	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15007	CP-13	19+00	44.90' LT	523304.96	1317564.98	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15009	CP-14	20+50	48.16' LT	523452.22	1317596.58	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15011	CP-15	22+00	43.97' LT	523598.04	1317641.54	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS

LIGHTING NOTES:

- 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN.
- PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO.
 ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
- 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN
- DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE.
 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.





NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

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$\overline{}$				
/1\	Revised Luminaire Wattage	03/11/22	MDS	
				MONTGOMERY COUNTY
				DEPARTMENT OF TRANSPORTATION
				ROCKVILLE, MARYLAND
				RECOMMENDED FOR APPROVAL
				REFER TO TITLE SHEET FOR SIGNATURES
				Chief, Design Section
				APPROVED

Chief, Division of Transportation Engineering

Designed by: MDS Drawn by: MDS Checked by: JMC

DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

ED FOR APPROVAL
REFER TO TITLE SHEET FOR SIGNATURES
Date

REFER TO TITLE SHEET FOR SIGNATURES

REFER TO TITLE SHEET FOR SIGNATURES

NAVD 88

0 30′ 60′	DATUM: NAD 83(2011) HORIZ NAVD 88 VERT
SCALE: 1"=30'	DATE: DECEMBER 2021
Project No. : <u>501902</u>	SHEET <u>70</u> of <u>135</u>

M-NCPPC PERMIT NO. ____2020-034 PARK J33

REVIEWED BY Brian Lewandowski APPROVED BY CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
15013	CP-16	23+50	35.71' LT	523739.51	1317698.26	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15015	CP-17	25+00	31.23' LT	523878.40	1317756.18	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15017	CP-18	26+50	20.39' LT	524014.54	1317820.08	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15019	CP-19	28+00	17.16' LT	524153.75	1317871.81	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15021	CP-20	29+65	17.32' LT	524312.30	1317913.74	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS

<u>LIGHTING NOTES:</u>

- 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN.
- PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO.
 ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
- 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN
- DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE. 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.



LIGHTING LEGEND PROPOSED LED COLONIAL POST PROPOSED TREE PEDESTRIAN LIGHT POLE (ULTIMATE CANOPY) EXISTING LIGHT & POLE TO REMAIN EXISTING TREE PROPOSED LED LIGHT ON POWER POLE EXISTING LIGHT ON POWER POLE TO REMAIN POLE NUMBER

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

				ROCKVILLE, MARYLAND	
				REFER TO TITLE SHEET FOR SIGNATURES	
				Chief, Design Section Date APPROVED	
				REFER TO TITLE SHEET FOR SIGNATURES	
				Chief, Division of Transportation Engineering Date	
NO.	REVISION	DATE	BY	Designed by: MDS Drawn by: MDS Checked by: JMC	<u>; </u>

Revised Luminaire Wattage | 03/11/22 | MDS

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND

SHARED USE PATH DATUM: NAD 83(2011) HORIZ NAVD 88 VERT SCALE: 1"=30' DATE: DECEMBER 2021 Project No. : <u>501902</u>

LT-04 LIGHTING PLAN

GOOD HOPE ROAD

M-NCPPC PERMIT NO. ___2020-034 ___ PARK_J33

REVIEWED BY Brian Lewandowski

APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

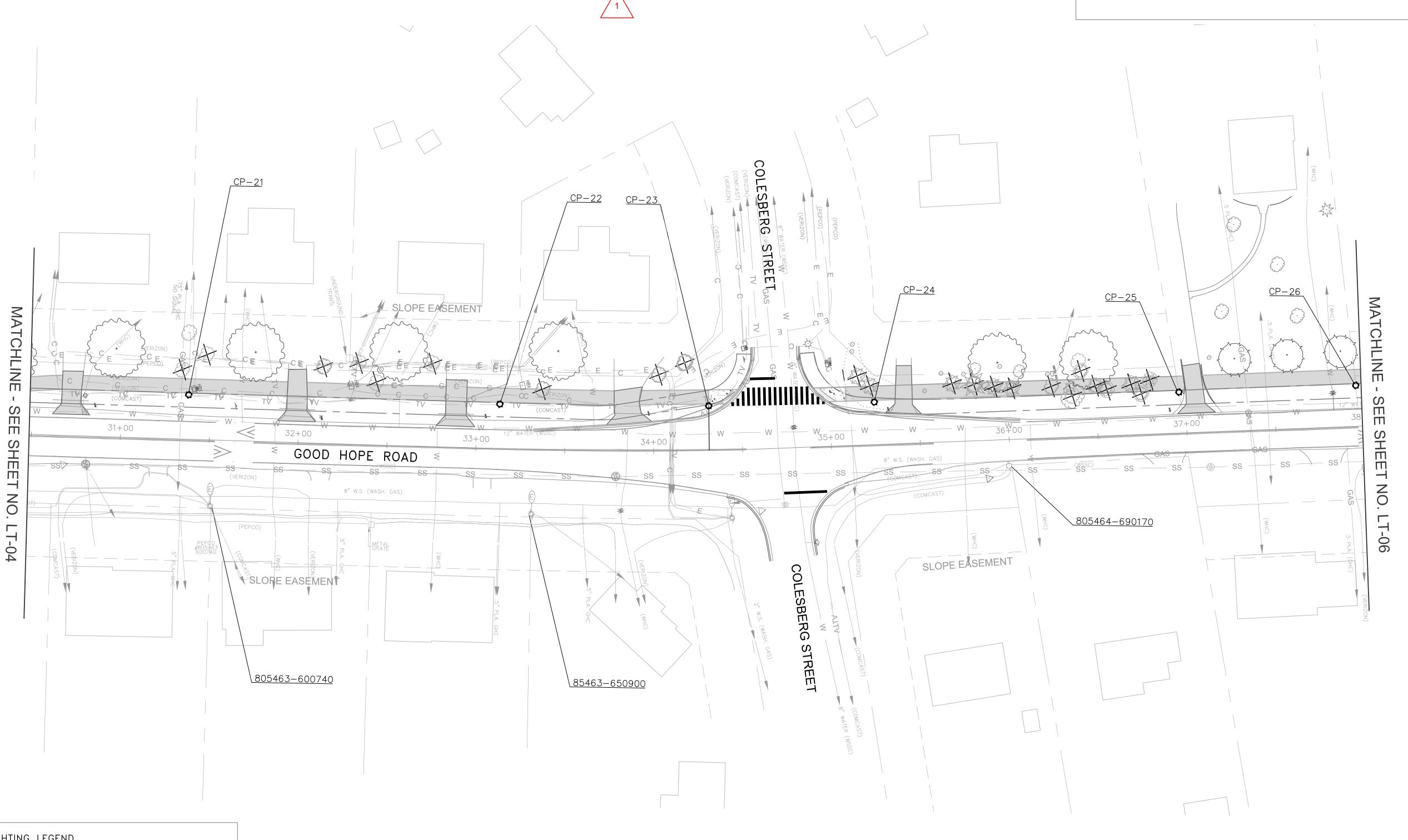
This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
15023	CP-21	31+37.23	25.00' LT	524481.77	1317950.57	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15025	CP-22	33+12.76	25.18' LT	524651.01	1317995.10	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15027	CP-23	34+31.26	29.75' RT	524765.16	1318022.57	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15029	CP-24	35+25.00	24.00' LT	524856.31	1318041.47	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15031			23.00' LT		1318074.65	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15033	CP-26	37+95.45	23.00' LT	525122.12	1318093.40	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS

<u>LIGHTING NOTES:</u>

- 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN.
- PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO.
 ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
- 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN
- DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE.

 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.



<u>LIGHTING LEGEND</u>

PROPOSED TREE

(ULTIMATE CANOPY)

PROPOSED LED COLONIAL POST PEDESTRIAN LIGHT POLE

EXISTING LIGHT & POLE TO REMAIN

PROPOSED LED LIGHT ON POWER POLE

EXISTING TREE

EXISTING LIGHT ON POWER POLE
TO REMAIN

XXX POLE NUMBER

NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

				RECO
				Chief
				APPR
				——— Chief
				0
NO.	REVISION	DATE	BY	Desi

/ 1 \ Revised Luminaire Wattage | 03/11/22 | MDS

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

D FOR APPROVAL

REFER TO TITLE SHEET FOR SIGNATURES

Chief, Design Section Date

APPROVED

Defend TO TITLE SHEET FOR SIGNATURES

 GOOD HOPE ROAD SHARED USE PATH

 0
 30'
 60'
 DATUM: NAD 83(2011) HORIZ NAVD 88 VERT

 SCALE: 1"=30'
 DATE: DECEMBER 2021

 Project No.: 501902
 SHEET 72 of 135

M-NCPPC PERMIT NO. ___ 2020-034 PARK J33

REVIEWED BY Brian Lewandowski APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

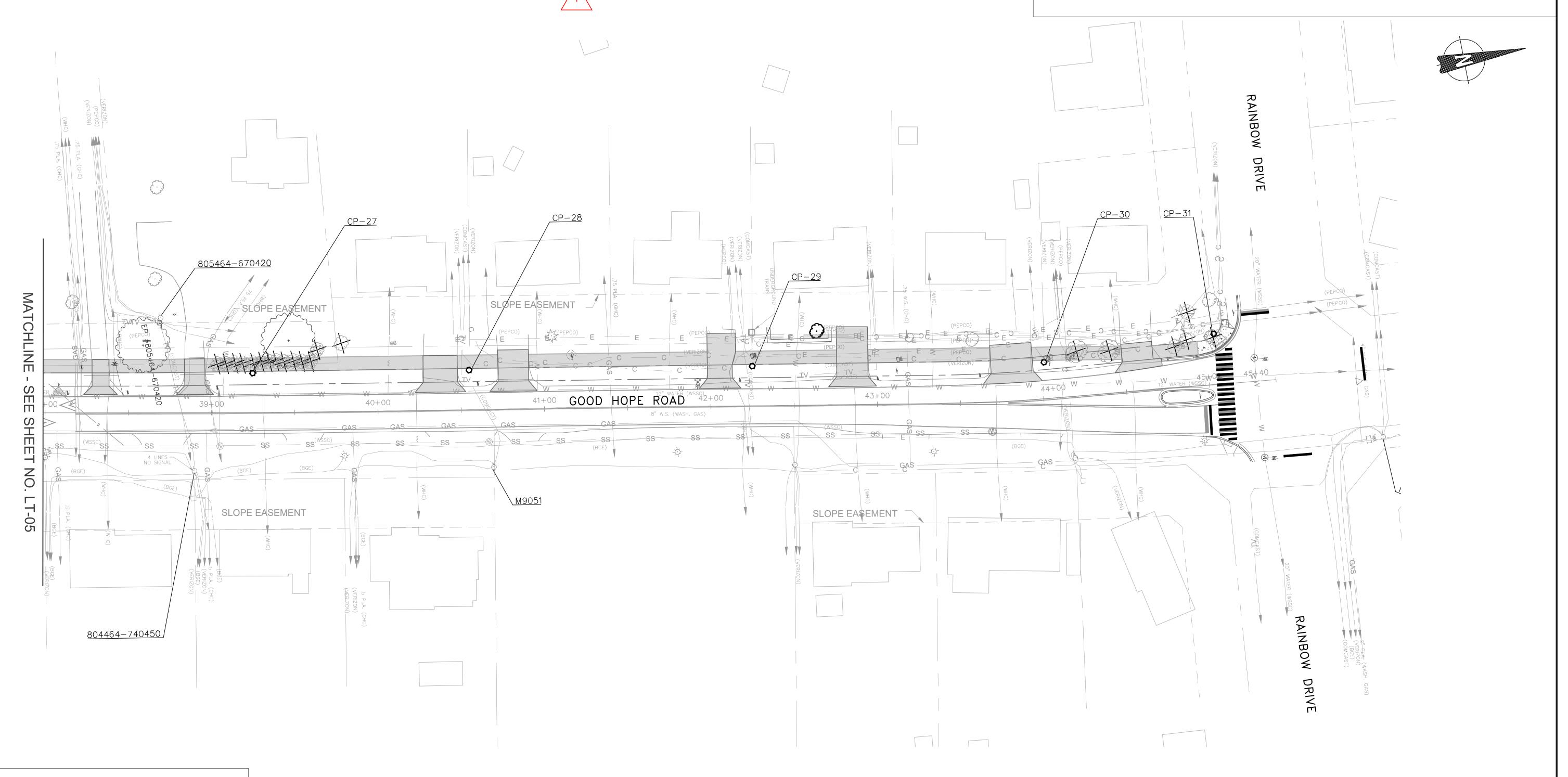
THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

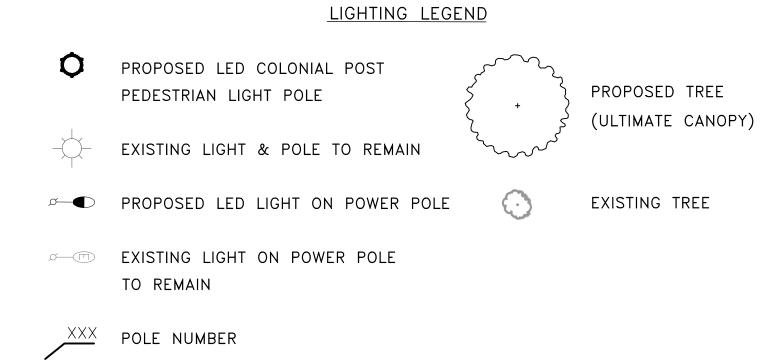
This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

MCDOT POLE TAG#	POLE #	STATION	OFFSET	NORTHING	EASTING	STREET NAME	WATTAGE	LAMP TYPE	LUMINAIRE STYLE	POLE STYLE
15035	CP-27	39+25	23.75' LT	1318116.91	525248.82	GOOD HOPE ROAD	70- 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15037	CP-28	40+55	24.00' LT	1318139.73	525376.80	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15039	CP-29	42+25	24.00' LT	1318169.59	525544.29	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15041	CP-30	44+02	22.00' LT	1318200.42	525716.85	GOOD HOPE ROAD	70 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS
15043	CP-31	45+05	30.50' LT	1318202.99	525820.17	GOOD HOPE ROAD	70- 27	LED	PROPOSED COLONIAL POST	16' BLACK FIBERGLASS

<u>LIGHTING NOTES:</u>

- 1. EXISTING LEASE LIGHTING AND PENDANT POST STREET LIGHT POLES TO REMAIN. 2. PROPOSED LIGHT POLES TO BE CABLED AND POWERED BY PEPCO.
- 3. ALL PROPOSED LIGHTING SHALL INCORPORATE LED LUMINAIRES.
- 4. FOUNDATION OF DECORATIVE LAMP POST SHALL BE 4.5' IN HEIGHT AND 2' IN DIAMETER PER SPECIFICATIONS FOR STREETLIGHT HARDWARE.
- 5. SEE LANDSCAPING PLANS FOR EXISTING TREES TO BE REMOVED.





NOTES:

1. PLAN SHEET IS ENTIRELY WITHIN UPPER PAINT BRANCH SPECIAL PROTECTION AREA.

	<u> </u>				
	1	Revised Luminaire Wattage	03/11/22	MDS	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND
					REFER TO TITLE SHEET FOR SIGNATURES Chief, Design Section Date APPROVED REFER TO TITLE SHEET FOR SIGNATURES
					Chief, Division of Transportation Engineering Date
NO	0.	REVISION	DATE	BY	Designed by: MDS Drawn by: MDS Checked by: JMC

REFER TO TITLE SHEET FOR SIGNATURES Chief, Design Section APPROVED REFER TO TITLE SHEET FOR SIGNATURES

GOOD HOPE ROAD SHARED USE PATH

DATUM: NAD 83(2011) HORIZ NAVD 88 VERT DATE: DECEMBER 2021 SCALE: 1"=30' SHEET <u>73</u> of <u>135</u> Project No. : <u>501902</u>

LT-06 LIGHTING PLAN

M-NCPPC PERMIT NO. 2020-034

REVIEWED BY Brian Lewandowski APPROVED BY CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

PARK J33

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574 SPECIFICATIONS FOR STREETLIGHT HARDWARE

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

RESIDENTIAL, COLONIAL POST-TOP, LED OPTICS, TYPE III DISTRIBUTION, STYLE LUMINAIRE

PURPOSE

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of colonial post-top, LED optics, type III distribution, style luminaire. This luminaire is intended for use on or with the black fiberglass pole. These colonial post-tops, LED optics, type III distribution, style luminaires are intended for use along residential roadways, walkways, and tunnels throughout Montgomery County. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

DESCRIPTION The residential, colonial post-top, LED optics, type III distribution, style luminaire is

- made of a cast aluminum alloy housing. Each streetlight luminaire shall include the following:
 - a) Cast aluminum housing and hinged top canopy;
 - 120 volt LED Driver; 10KV Surge Suppression Device built in;
 - NEMA standard photoelectric control receptacle and NEMA multi-volt
 - standard photocell; Acrylic or Polycarbonate resin refractor side panels (lens);
 - All necessary hardware required for mounting on fiberglass poles, as specified.

DESIGN CRITERIA

3.1) AASHTO Standards The luminaire shall meet the requirements of American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Structural supports for Highway Signs, Luminaires and Traffic Signals," latest

3.2) Shape and Minimum Size

The luminaire shall be of a trapezoidal shape. The minimum size for the luminaire shall 40.0 inches (sum of the length plus height), when viewed from the side.

The luminaire shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.

3.3 Effective Projected Area (EPA)

SPECIFICATIONS FOR STREETLIGHT HARDWARE

The luminaire shall have a maximum estimated allowable EPA for the luminaire of $0.7 \pm \text{square feet}$.

3.4 Finish The luminaire shall have a black polyester powder coat finish. During the

finishing process, all critical openings shall be plugged to prevent contamination of the threads or reduction of other critical openings. 4) MATERIALS

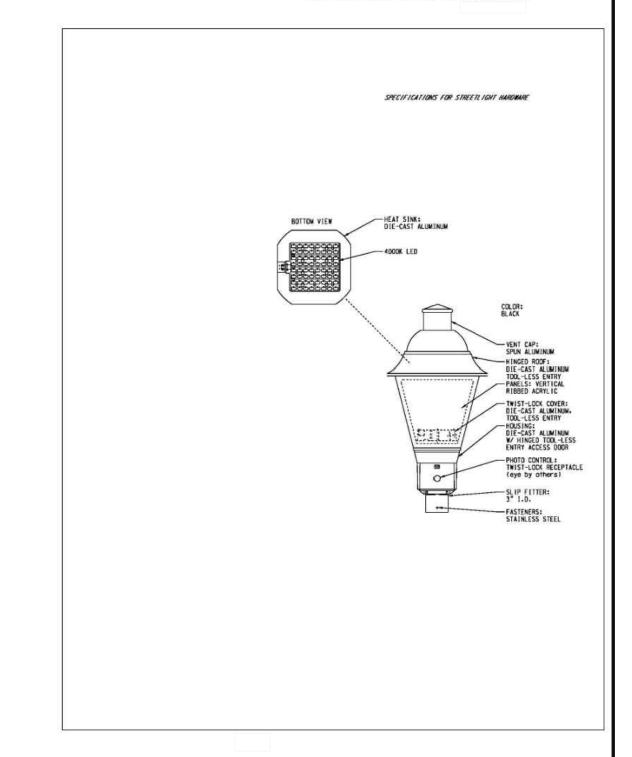
4.1 Housing The luminaire shall consist of a water tight housing fabricated from die-cast aluminum with a gasketed die-cast aluminum canopy. The canopy shall be hinged on one side and secured on the opposite side with a captive stainless steel screw. All castings used to fabricate the luminaire housing shall be clean and smooth with details defined and true to pattern. The housing shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.

4.2 <u>Driver & Surge Protection</u>

The driver shall be mounted to facilitate easy removal for maintenance operations. The driver shall be equipped with a 10KV Surge Protection and suppression system. All electrical connections shall be polarized and of plug-in design. The driver shall be wired to receive 120 volt AC current. The driver shall reliably start and operate the lamp in ambient temperatures down to minus 30 degrees. The terminal block shall be capable of accepting up to a #6 AWG wire.

- 4.3 LED Color Temperature (CCT) and Rendering Index (CRI) The Correlated Color Temperature (CCT) shall be a nominal Kelvin Temperature of 3500K ± 200K with a minimum Color Rendering Index (CRI) of 70.
- 4.4 Photoelectric Cell The photocell receptacle shall be mounted for easy access and maintenance. The photocell shall be of the NEMA twist-lock type.
- 4.5 Side refractor panels The luminaire shall be equipped with acrylic or polycarbonate resin refractor panels, with spring loaded retainer clips to hold refractor panels.
- The slip fitter shall have a nominal inside diameter of 3.375 inches +/- 0.25 and shall be secured to the lamp post tenon with three or four evenly spaced set screws. The slip fitter shall accommodate a tenon 3.0 inches long.

SPECIFICATIONS FOR STREETLIGHT HARDWARE



SPECIFICATIONS FOR STREETLIGHT HARDWARE

MONTGOMERY COUNTY, MARYLAND DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AND OPERATIONS SECTION

JUNE 2016

STREETLIGHT POST NUMBERING TAGS

PURPOSE

The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of streetlight post numbering tags. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

DESIGN CRITERIA

The streetlight post numbering tags are to be made of aluminum and finished with a similar color coating as that of the streetlight pole it is to be rigidly attached to. This streetlight post numbering tag is intended for use on all streetlight post maintained by Montgomery County.

Each pole numbering tag shall comply to the following:

- a) Be 2" wide and 12" long
- b) Be a color similar to the streetlight pole
- c) Have 5 numbers of an opposite color placed vertically d) All White/Silver surfaces shall be made of retroreflective sheeting
- e) All colored surfaces shall be nonreflective

3) MATERIALS

a) <u>TAG</u>

The streetlight post numbering tags shall be 12 inches X 2 inches, fabricated from clear anodized 1/16 inch thick aluminum. The edges shall be smooth and corners rounded and the tag shall fit the streetlight pole shaft.

b) REFLECTIVE AREAS

The streetlight post numbering tag reflective area shall conform to D4956, Type III retroreflective sheeting.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

- c) NONRELECTIVE AREAS The streetlight post numbering tags nonrelective areas shall be as follows:
 - a. Numbers on white/silver reflective post tag
 - b. Backing on all other streetlight post tags

MOUNTIING HEIGHT

The streetlight post numbering tag should be mounted at a height approximately 10 foot from the surrounding elevation of the ground, unless otherwise approved and directed by the Engineer.

MOUNTING ORIENTATION

The streetlight post numbering tag shall be oriented and rigidly mounted at a 30 to 45 degree angle, so that approaching traffic can readily observe the tags numbers.

MOUNTING HARDHARE

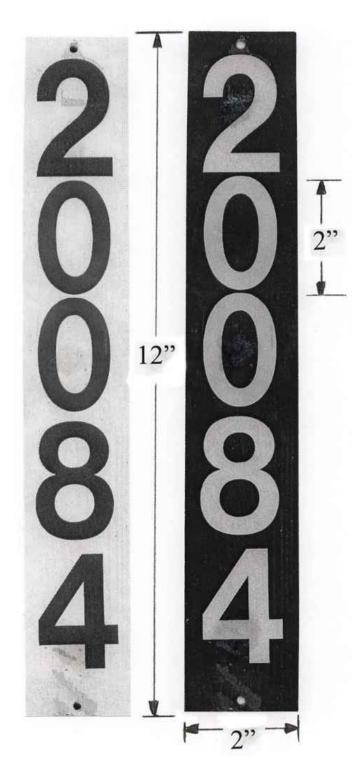
The streetlight post numbering tag shall be secured to the shaft of the streetlight by a means of two (2) 1/8 inch diameter, 18-8 stainless steel tamper-proof screw.

7) <u>NUMBERS</u>

REVISION

The streetlight post numbering tag numbers shall be a minimum of 2 inch high with a minimum of a 1/4 inch stroke width.

SPECIFICATIONS FOR STREETLIGHT HARDWARE



MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

REFER TO TITLE SHEET FOR SIGNATURES Chief, Design Section APPROVED

REFER TO TITLE SHEET FOR SIGNATURES Chief, Division of Transportation Engineering

Designed by: MDS Drawn by: MDS Checked by: JMC

LT-07 LIGHTING NOTES & DETAILS

GOOD HOPE ROAD

SHARED USE PATH

SCALE: 1"=30'

Project No. : <u>501902</u>

DATUM: NAD 83(2011) HORIZ NAVD 88 VERT DATE: DECEMBER 2021 SHEET 74 of 135

FILE NAME: Q:\2013\130605_007_Good_Hope_Road_Sidew\CADD\pLT_Notes_GoodHope.dwg LAYOUT NAME: LT-07 PLOTTED: Tuesday, November 16, 2021 - 11:56am USER: MStraughan

M-NCPPC PERMIT NO. ___ 2020-034 __

PARK J33
REVIEWED BY Brian Lewandowski

APPROVED BY CHIEF, CONSTRUCTION SECTION

DATE APPROVED 12/14/2021

THIS IS NOT A PERMIT TO BEGIN CONSTRUCTION

This approval is for technical review only. For permit information, contact Jay Childs, Construction Supervisor at (301) 495-2574

SPECIFICATIONS FOR STREETLIGHT HARDWARE

MONTGOMERY COUNTY, MARYLAND DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

RESIDENTIAL, DIRECT BURIAL FIBERGLASS POLE ROUND, TAPERED, POST-TOP GRAY OR BLACK

1) <u>DESCRIPTION</u>

The residential, round, tapered, direct burial fiberglass pole shall be made of a fiberglass reinforced composite (fiberglass filament and color pigmented resin), with a polyurethane and UV inhibitor coating, with a natural finish. This fiberglass pole is intended for use on residential roadways, walkways, and tunnels throughout Montgomery County. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and the attached drawings.

2) <u>DESIGN CRITERIA</u>

2.1 AASHTO Standards

The residential, round, tapered, direct burial fiberglass pole shall meet the requirements of the American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Structural supports for Highway Signs, Luminaires and Traffic Signals," latest edition.

2.2 Wind Load

The residential, round, tapered, direct burial fiberglass pole shall be designed to resist (at yield strength of the material without permanent deflection or destruction) test loads equivalent to the calculated wind loads developed by the velocity pressures of an 80 MPH wind with a 30% gust factor. A minimum safety factor of 1.82 on the yield strength shall be maintained.

2.3 Effective Projected Area (EPA)

The residential, round, tapered, direct burial fiberglass pole shall be designed

SPECIFICATIONS FOR STREETLIGHT HARDWARE

using the following assumptions:

- a) The streetlight luminaire shall be mounted at a height of 12 feet above the level of the surrounding ground (EPA of 3 Sq. Ft. +/-).
- b) One (24" x 36") traffic sign may be mounted with the sign's bottom edge 7 feet above the ground. (EPA of 6 Sq. Ft. +/-).

3) MATERIALS

- a) The residential, round, tapered, direct burial fiberglass pole shall be constructed by a winding filament process with color pigmented polyester resin impregnated into the filaments. The filament winding shall be continuously applied with uniform tension.
- b) The resin used will be color pigmented and shall be ultraviolet resistant. A highly weather resistant pigmented polyurethane coating shall be applied to the pole at a minimum thickness of 1.5 mils.

4) <u>FINISH</u>

The residential, round, tapered, direct burial fiberglass pole shall be of a natural finish for the entire length of the pole.

5) <u>TENONS</u>

The residential, round, tapered, direct burial fiberglass pole shall have a permanently bonded, hot-dipped galvanized steel or aluminum, 3 inch tenon.

6) <u>HAND-HOLES</u>

The residential, round, tapered, direct burial fiberglass pole shall have one 2 ½ inch x 5 inch hand-hole, with a non-metallic cover secured with a vandal-resistant, stainless steel screws.

7) <u>POLE</u>

7.1 Shaft

The residential, round, tapered, direct burial fiberglass pole shaft shall have a bottom pole diameter of 5.5 inches (+/- 0.1 inches), and a top pole diameter of 2.9 inches (+/- 0.1 inches)

SPECIFICATIONS FOR STREETLIGHT HARDWARE

7.2 Length

REVISION

The residential, round, tapered, direct burial fiberglass pole shall have a nominal minimum luminaire mounting height of 12 feet and a maximum of 14 feet above the surrounding ground. The shaft shall be embedded a minimum of 3 feet in the ground.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

SPECIFICATIONS FOR STREETLIGHT HARDWARE

- Lus

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

REFER TO TITLE SHEET FOR SIGNATURES

Chief, Design Section Date

APPROVED

Designed by: MDS Drawn by: MDS Checked by: JMC

REFER TO TITLE SHEET FOR SIGNATURES

Chief, Division of Transportation Engineering

Date

LT-08 LIGHTING NOTES & DETAILS

GOOD HOPE ROAD SHARED USE PATH

0 30' 60' SCALE: 1"=30'

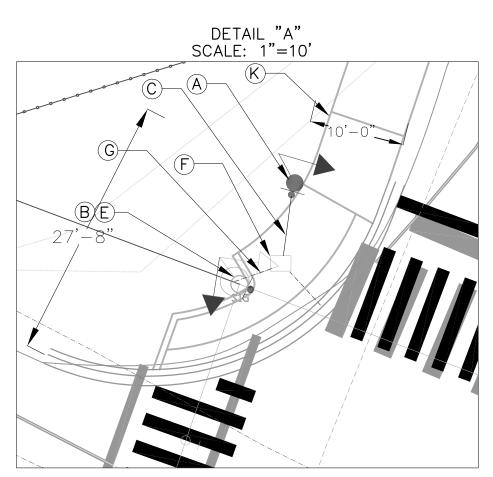
Project No. : <u>501902</u>

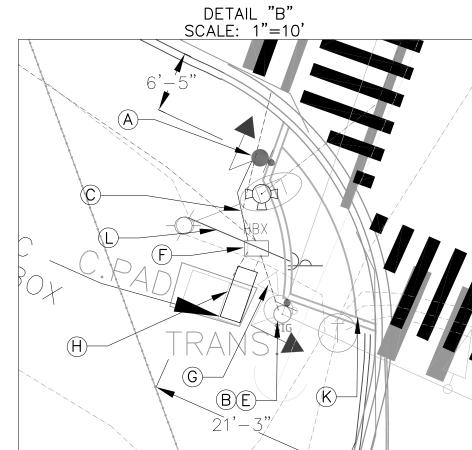
DATUM: NAD 83(2011) HORIZ
NAVD 88 VERT

DATE: DECEMBER 2021

SHEET ____75___ of ___135___

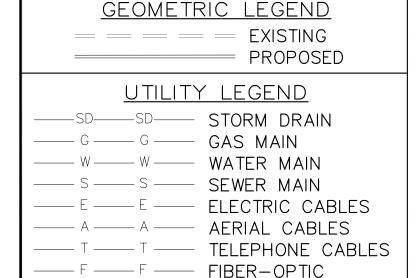
NOTE: BRIGGS CHANEY ROAD IS ASSUMED TO RUN IN AN EAST—WEST DIRECTION.





CONSTRUCTION DETAILS

- A. INSTALL CONCRETE FOUNDATION WITH 10 FT. PEDESTAL STEEL POLE WITH MODIFIED BREAKAWAY BASE PER STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON AND SIGN. (NOTE: 1-3 IN. PVC SCHEDULE 80 CONDUIT BEND).
- B. INSTALL COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS PUSHBUTTON AND SIGN.
- C. INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT TRENCHED.
- D. INSTALL 24 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- E. REMOVE EXISTING PUSHBUTTON, COUNT DOWN PEDESTRIAN SIGNAL HEADS, AND SIGN.
- F. USE EXISTING TRAFFIC SIGNAL HAND BOX.
- G. USE EXISTING CONDUIT.
- H. USE EXISTING TRAFFIC CABINET AND CONTROLLER. (NOTE: MONTGOMERY COUNTY FORCES SHALL INSTALL 2 WIRE CONTROL UNIT INTO CABINET.
- K. PROPOSED GEOMETRIC IMPROVEMENTS. SEE PLAN SHEET PS-02 FOR DETAILS.
- L. EXISTING OVERHEAD ELECTRICAL SERVICE TO BE MAINTAINED BY PEPCO.
- M. REMOVE EXISTING PAVEMENT MAKINGS (CROSSWALK AND STOP LINE)
- N. INSTALL 15' STREETLIGHT ARM WITH 150W LED COBRAHEAD LUMINAIRE ON EXISTING SIGNAL POLE.
- P. INSTALL 16 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR PEDESTRIAN CROSS WALK. SEE PLAN SHEET SN-01 FOR PEDESTRIAN CROSS WALK DETAILS.



EXISTING SIGNS TO REMAIN

| Briggs Chaney Rd Briggs Chaney 1500 D-3(1) VAR. X 18" D-3(1) VAR. X 18" Good Hope Rd

Briggs Chaney (150 D-3(1) VAR. X 18"

ONLY

SEE DETAIL "A"-

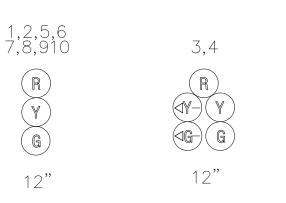
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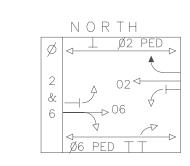
SEE DETAIL "B"-

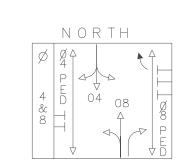
EXISTING SIGNS TO BE REMOVED



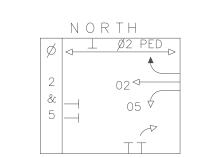
EXISTING SIGNALS TO REMAIN



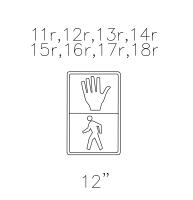




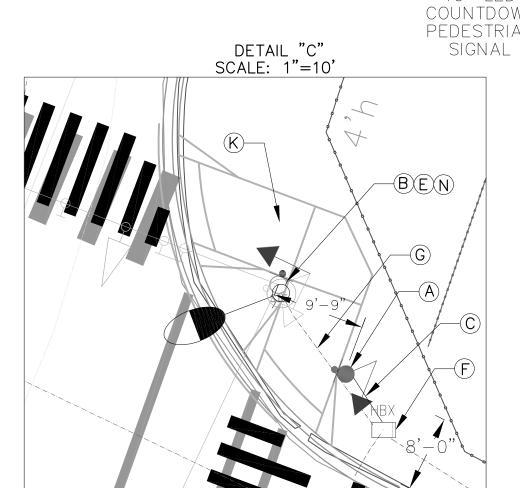
SIGNAL PHASING

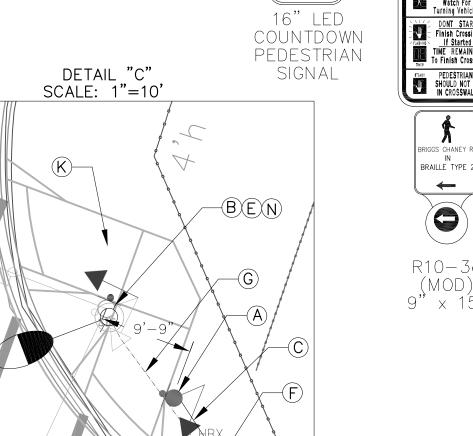


EXISTING SIGNALS TO BE REMOVED

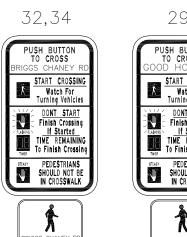


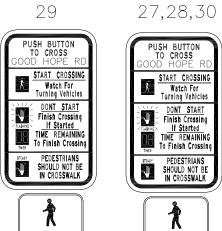
PROPOSED SIGNS AND LED SIGNALS



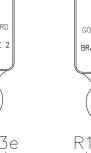


11-18

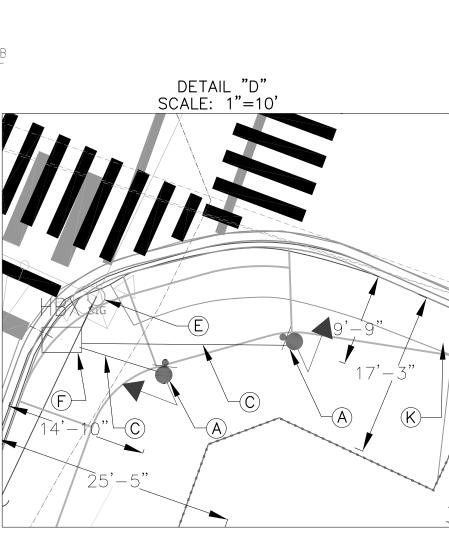


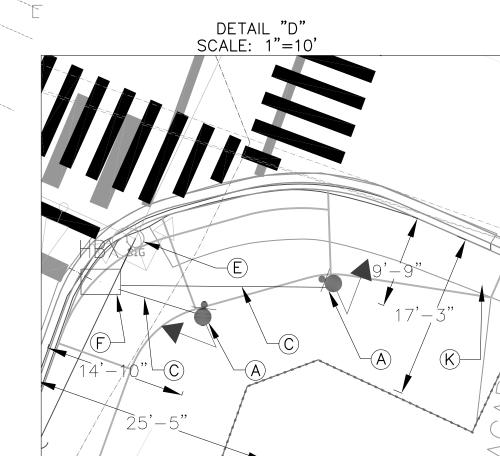














	1	ADD WEST BOUND E/P LEFT TURN	2/5/1999	RRZ	DESIGNED BY:
	1	PHASE, RE-CUT LOOPS, ADD SIGNS	2/3/1999	IXIXZ	DRAWN BY:
	2	ASBUILT	1/31/2006	RRZ	CHECKED BY:
		ADD WB RT LANE, REPLACE POLE	10 /07 /0007	RRZ	DRAWING NO:
		ADD COUNTDOWN PEDS, LED SIGNALS AND LOOPS	10/23/2007	KKZ	
ĺ		RECONSTRUCT ADA RAMPS, UPGRADE			Approved:
	4	APS SIGNAL EQUIPMENT AND LUMINAIRE	05/2021	CHH	Division of Traffic
i					Reviewed:
					Manager, Trans
ı					Reviewed:
					· —
					Manager Traffic
					Recømmended:

-SEE DETAIL "D"

REVISION

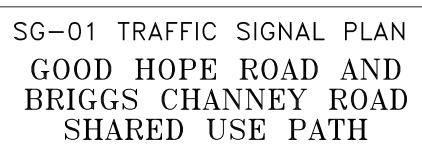
SEE DETAIL "C"

RAWN BY:	DATE
HECKED BY:	DATE
RAWING NO:	Q ATE
Approved: Division of Traffic Engineer	ring and Operations
Reviewed:	×
Manager, Transportation S	ystems Engineering
Reviewed:	
Manager Traffic Engineerin	ng Studies Section

BY Engineer, Transportation Systems Engineering

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES

Chief, Design Section APPROVED Kamal Hamud 01/03/2022 Date Chief, Traffic Engineering & Operations Division Designed by: CHH Drawn by: CHH Checked by: ____JMC



DATE: DECEMBER 2021 SCALE: 1"=20' Project No. : <u>501902</u> SHEET <u>76</u> of <u>135</u>

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING STRAIN POLE TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF BRIGGS CHANEY ROAD AND GOOD HOPE ROAD IN MONTGOMERY COUNTY. AS A PART OF THE LARGER SIDEWALK CONNECTIVITY IMPROVEMENT PROJECT, ALL CURB RAMPS, CROSSWALKS, ACCESSIBLE PEDESTRIAN SIGNALS (APS) WITH AUDIBLE PUSHBUTTONS AND COUNTDOWN PEDESTRIAN SIGNAL (CPS) HEADS WILL BE REPLACED. THIS INCLUDES THE INSTALLATION OF FIVE (5) PEDESTRIAN SIGNAL POLES FOR THE INSTALLATION OF APS PUSHBUTTONS AND CPS HEADS. BRIGGS CHANEY ROAD ROAD IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

- THE INTERSECTION SHALL CONTINUE TO OPERATE IN A NEMA FIVE-PHASE, FULLY-ACTUATED MODE, WITH THE BRIGGS CHANEY ROAD APPROACHES RUNNING CONCURRENTLY. THE EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR THE WESTBOUND APPROACH OF BRIGGS CHANEY ROAD SHALL REMAIN IN OPERATION. THE PEDESTRIAN PHASES CROSSING GOOD HOPE ROAD AND BRIGGS CHANEY ROAD SHALL BE COUNTDOWN PEDESTRIAN PHASES WITH PUSHBUTTON ACTUATION.
- THE EXISTING FULL—TRAFFIC—ACTUATED, EIGHT—PHASE CONTROLLER WITH ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE "6" BASE-MOUNTED CABINET SHALL BE UTILIZED AT THIS INTERSECTION.
- MONTGOMERY COUNTY SIGNAL SHOP SHALL INSTALL APS CONTROL UNIT INTO CONTROLLER CABINET. THE CONTRACTOR SHALL DELIVER THE CONTROL UNIT AND AUDIBLE PUSHBUTTONS TO THE MONTGOMERY COUNTY SIGNAL SHOP FOR TESTING AND PROGRAMMING AT LEAST TWO WEEKS PRIOR TO THE BEGINNING OF WORK.

III. SPECIAL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
- 2. ALL CONTROLLER CABINET WIRING WILL BE PREFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777-8761 SEVENTY-TWO (72) HOURS IN ADVANCE OF INTENDED WORK.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

APS WILL FUNCTION AS FOLLOWS

FOR BRIGGS CHANEY ROAD

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS BRIGGS CHANEY ROAD AT GOOD HOPE ROAD WAIT."
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

FOR GOOD HOPE ROAD

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON
- MESSAGE WILL BE "WAIT TO CROSS GOOD HOPE ROAD AT BRIGGS CHANEY ROAD WAIT."
- WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

GENERAL NOTES

- 1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR FOLLOWING MONTGOMERY COUNTY GUIDELINES UTILIZING THE MOST RECENT EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR TRAFFIC CONTROL.
- 2. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY THE ULTIMATE GRADES PRIOR TO INSTALLATION OF ALL SIGNAL EQUIPMENT
- 3. THE CONTRACTOR SHALL INTEGRATE CONCRETE FOUNDATIONS WITH THE PROPOSED SIDEWALK WHERE
- 4. THE CONTRACTOR SHALL CONTACT MONTGOMERY COUNTY TMC AT 240-777-2100, 72 HOURS PRIOR TO
- STARTING ALL WORK. 5. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL
- LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18 INCHES.
- 6. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL 7. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET FOUNDATIONS PRIOR TO INSTALLATION.
- 8. ALL PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED IN ACCORDANCE WITH MONTGOMERY COUNTY STANDARDS. ALL CROSSWALKS SHALL BE CENTERED ON HANDICAP RAMPS OR MEDIAN CUT THROUGHS.
- 9. ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION, INCLUDING CONDUIT. MONTGOMERY COUNTY WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING, TERMINATING AND PROPERLY LABELING ALL SIGNAL CABLES.
- 10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MARYLAND MUTCD SECTION 4E.09 AND FIGURE 4E.2; AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS AND NOTIFY THE PROJECT ENGINEER. IF NEEDED A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE CHIEF, MONTGOMERY COUNTY DIVISION OF TRAFFIC ENGINEERING
- 11. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 INCH X 60 INCH LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- 12. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THIS PLAN ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION TO LOCATE UTILITIES. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITY AND TRAFFIC SIGNAL WORK WILL OCCUR. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT CONFLICTS MAY BE RESOLVED.
- 13. THE CONTRACTOR SHALL REMOVE ALL UNUSED WIRING.

GEOMETRIC LEGEND					
====== EXISTING					
PROPOSED					
<u>utility legend</u>					
SDSTORM DRAIN					
GGAS MAIN					
WWATER MAIN					
SSEWER MAIN					
E-E ELECTRIC CABLES					
AAERIAL CABLES					
TT TELEPHONE CABLES					
F-F-F FIBER-OPTIC					

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR.

ITEM NO. QUANTITY DESCRIPTION

NONE

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
203030	2.5 CY	TEST PIT EXCAVATION
549615	750 LF	16 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING
549617	120 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING
801005	1 CY	CONCRETE FOUNDATION FOR TRAFFIC CONTROL DEVICES.
805135	85 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED)
806025	1 EA	LED ROADWAY LUMINAIRE
861105	360 LF	2—CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
861107	380 LF	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
861116	200 LF	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG)
802501	90 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
818004	5 EA	10 FOOT BREAKAWAY PEDESTAL POLE
818007	5 EA	INSTALL BREAKAWAY PEDESTAL POLE WITH FOUNDATION AND GROUND ROD
865210	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
860285	8 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
865300	1 EA	2-WIRE APS CENTRAL CONTROL UNIT
866103	1 EA	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
873005	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT

C. IF THE CABINET IS TO BE REMOVED MONTGOMERY COUNTY FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

SEQUENCE OF OPERATION SHEET

BRIGGS CHANEY RD RUNS IN AN EAST-WEST

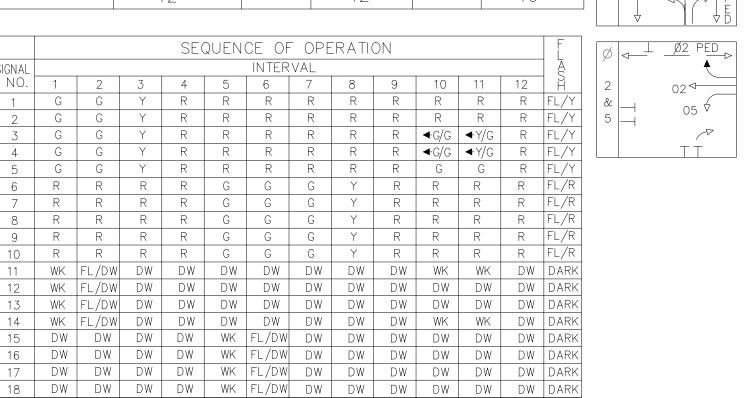
DIRECTION

TRAFFIC OPERATIONS SECTION DIVISION OF TRAFFIC ENGINEERING MONTGOMERY COUNTY, MARYLAND

INTERSECTION: BRIGGS CHANEY RD AND GOOD HOPE RD SIGNAL HEAD INDICATIONS NORTH 1,2,5,6, 7,8,9,10 3,4 SIGNAL NO. 11-18 8 TOTAL: LEGEND Ø6 PED TT OPTICALLY — LIMITED **(4** Y−) (Y R RED $3 \mid \cancel{q} \uparrow$ Y YELLOW **(**G) G GREEN | 4 | E | 04 08 **←** ARROW F FLASHING

INTERVAL

4 & 8



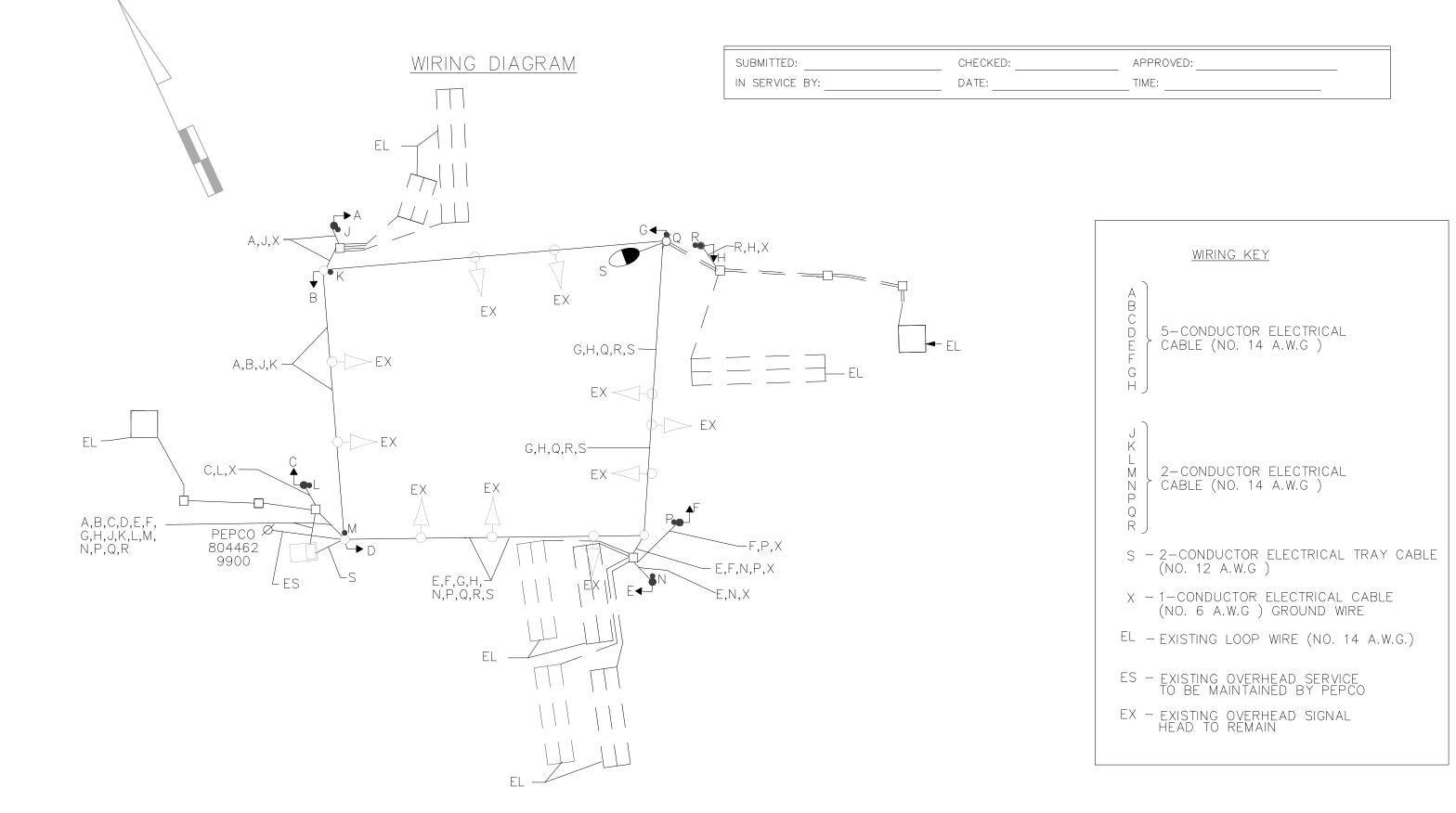
ALL 2 & 5 RED

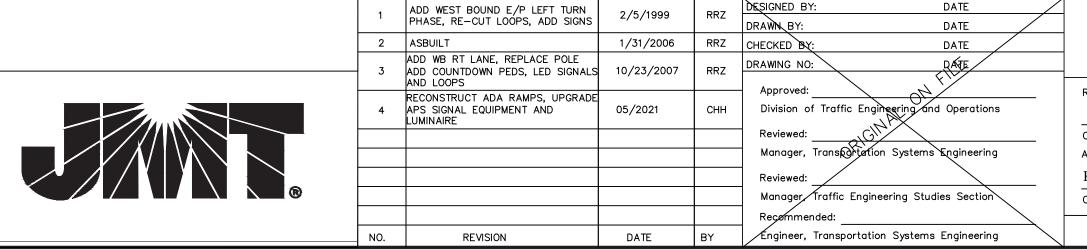
PHASING

NOTES:

2 & 6

PHASE





MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG. MARYLAND

RECOMMENDED FOR APPROVAL REFER TO TITLE SHEET FOR SIGNATURES Chief, Design Section Date APPROVED

Kamal Hamud 01/03/2022 Chief, Traffic Engineering & Operations Division Date Drawn by: ____CHH Designed by: CHH Checked by: ____JMC

SG-02 TRAFFIC SIGNAL PLAN GOOD HOPE ROAD AND BRIGGS CHANNEY ROAD SHARED USE PATH

SCALE: 1"=20'

DATE: DECEMBER 2021 Project No. : <u>501902</u>